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PYLORECTOMY FOR CARCINOMA WITH GASTRO-ENTEROSTOMY—RECOVERY.

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Read before the San Francisco Medico-Chirurgical Society.

The following case of resection of the pylorus for carcinoma, in the service of Dr. C. N. Ellinwood, in the City and County Hospital, San Francisco, presents a number of features of sufficient interest to warrant its being reported in detail:

Lizzie Tschech, aged 41, married, an Austrian by birth, gave the following history on entering the hospital, January 14, 1896: Her mother died of a tumor of the uterus, at the age of 65. Her father is still living and well. Patient always enjoyed good health as a child and as a woman; was married at the age of 28, but never had any children, nor as far as she knows was she ever pregnant. About four years ago, at the age of 37, she had an attack of rheumatism, which affected both hands and both feet, and confined her to bed for about 60 days. After this she remained well. She has always had more or less pain at her menstruation. About three years ago the patient and her husband were assaulted in the street at night, she receiving a blow from a heavy club on the back and the right side. It was about the time of her period, but the flow failed to appear, and she did not menstruate for three months. She suffered with pain in the back for a long time. About seven months ago her menstruation again ceased, and, up to the present, has not returned. On January 7, 1896, she applied to Cooper Medical College, seeking advice as to whether or not she was pregnant. No signs of pregnancy were made out, but tumor was discovered in the right hypochondrium, and she was sent to the hospital for operation.

The patient complains of annoying eructations of gas and frequent vomiting spells, when large amounts of sour, dark-colored fluid are thrown off. She is obstinately constipated, and has often gone 14 or 15 days without having a movement of the bowels. In spite of a ravenous appetite she is constantly losing flesh, so that at present she is considerably emaciated. The attacks of vomiting are becoming more frequent, and altogether she is in a pitiable condition. She has, however, little actual pain, but a constant feeling of weight and discomfort in the right side. She says she has never had any pelvic trouble sufficient to confine her to bed.

On careful examination, there is found in the right hypochondrium a well-defined tumor. This is freely movable, very hard, and about the size and shape of a small kidney. Its range of motion is about two inches in all directions. The kidney on the opposite side is not to be felt, notwithstanding the emaciation. Mechanical irritation of the abdomen causes a wave of severe peristaltic contractions to move from left to right; a tumor the size of one's fist forms in the left hypochondrium and passes across below the umbilicus to the right flank. It always disappears, however, just as it reaches the tumor described above; it never passes beyond it. At the site of the tumor there is a constant depression marked enough to be seen across the room. Rapid movements of the abdomen elicit well-marked succussion sounds, even as low down as the pubes. The stomach is evidently greatly dilated and its walls hypertrophied, facts which definitely locate the tumor at the pylorus. The bowels are exceedingly difficult to move; calomel and jalap, 10 grains of each, as well as 2 ounces of black draught, failed. However, with repeated doses of magnesium sulphate and numerous enemata the bowels were emptied pretty thoroughly in preparation for operation. The stomach tube was not passed.

Operation, January 29, 1896—When the patient was under ether a stomach tube was passed and about three quarts of dark brown fluid were removed.

A vertical incision 6 inches long was made over the inner edge of the tumor through the body of the right rectus muscle, and brought into view a tumor of the pylorus 7 centimeters long and 4 in diameter, but very slightly adherent to surrounding structures. The omentum of the pylorus seemed elongated, so that the tumor could easily be lifted quite out of the abdominal cavity. Digital exploration in the region of the celiac axis disclosed no enlarged lymphatic glands. The surface of the liver was smooth and presented no light-colored spots in the areas exposed to vision, nor were any hard nodules to be felt. The head of the pancreas seemed normal, and the gall-bladder also.

As there was no evidence of metastasis having taken place, the case was evidently a favorable one for removal of the pylorus, and this was accordingly done as follows: First, the omentum and transverse colon were lifted up and the jejunum found as it passes through the transverse meso-colon. A strip of gauze was passed through its mesentery and loosely tied about the gut for purposes of identification. To prevent regurgitation of intestinal contents when the section of the intestine should be made, a strip of gauze was similarly passed about the duodenum a few inches beyond the tumor and another about the stomach.

It was determined to do an anterior gastro-enterostomy, and, since the lesser omentum was so much elongated, it was practicable to ligate off the two layers of omentum as one; *i. e.*, by folding the greater and lesser omenta around the stomach posteriorly till they came in contact and passing ligatures through both together. By this means the rather extensive ligation was simplified and considerable time saved.

The tumor was removed by a transverse section in the duodenum and in the stomach, about two centimeters beyond the limit of palpable induration. There was no trouble whatsoever from hemorrhage. The stomach section was about ten centimeters long. The mucous and submucous layers of the stomach were united by a running stitch of fine silk, the turns being about one-sixth of an inch apart. When this row of sutures closing the mucous membrane was in place the patient vomited, and it is interesting to note that no leakage occurred. The hypertrophied muscular layer and the peritoneum were now united edge to edge by a continuous suture of fine silk, and finally a third row of Lembert continuous sutures inverted the whole. The open end of the duodenum was similarly closed.

Lateral anastomosis between the jejunum and the anterior surface of the stomach near the greater curvature was made with a large-ized Murphy's button, the female blade in the jejunum and the male in the stomach, the puckers being made with fine silk. The button closed satisfactorily, but because of the rigidity of the thick stomach wall as compared to the thin wall of the intestine it was thought best to reinforce the button with six or eight accessory Lembert sutures of fine silk. The region of the anastomosis was thoroughly washed with sterilized water, as well as the suture lines in the stomach and duodenum, and the whole was dropped back into the abdominal cavity. A small glass drain was inserted and the abdominal incision closed with successive layers of continuous sutures of catgut.

The duration of the operation was about an hour and a half. There was only a moderate amount of shock. One condition in favor of the patient was the fact that the intestines were completely empty and collapsed. Microscopical examination of the growth showed it to be carcinoma.

In the subsequent history of the case there is little to note. The highest temperature reached was 100.8° F. in the rectum, and the pulse remained generally below 100. The patient was given enemas of peptonized milk and whisky every 4 four hours until the sixth day, when feeding by the mouth was begun. There was considerable discharge of serum from the drainage tube, and on the fifth day this became purulent. The wound was accordingly opened and several ounces of pus evacuated. The cavity was packed with gauze. At the end of three weeks the wound had completely closed, and the patient was able to be out of bed. Although strict watch was kept for the appearance of the Murphy button it was not found. Whether it had dropped into the stomach, or had passed and been overlooked, is impossible to say. An esophageal sound was passed into the stomach, and the patient moved about, but no metallic click was elicited. At any rate, there has not been up to the present time a single symptom which could be referred to the button.

After the first week the patient had a ravenous appetite. One day before she was out of bed, in addition to a diet of a quart of milk, a steak, two chops, and two eggs, she ate on the sly nine raw eggs, which had been smuggled into the hospital for her.

At the present time, nine weeks since the operation, the patient's health is excellent; she has gained in weight something over 30 pounds.

Note: July 25.—The patient has been kept under observation, and now, five months after the operation, her health is excellent; there is no trouble from the button, digestion is perfect, the bowels are regular, the dilatation of the stomach is markedly less, and there is no evidence of recurrence of the cancer.

229 Geary street.

ANESTHESIA BY CHLOROFORM, ETHER, AND THEIR MIXTURES.

By E. C. Dunn, Ph.B., M.D., Fresno, Cal.

Read before the San Joaquin Valley Medical Society.

In presenting this subject for your consideration I am not prepared to promulgate an exhaustive didactic or analytical treatise, but shall merely advance some thoughts on anesthesia of as practical intent and succinct method as possible. In the further pursuance of this restriction, I shall confine myself to the consideration of general anesthesia with chloroform and ether, or their mixtures, as the agents for producing it.

A prominent authority gives a resume of the history of anesthesia for the last decade as follows: "This period shows no addition of value to our agents for the production of general anesthesia, no change in the principle which governs the process, nor has there been any decided change in the relative standing of the agents; yet it has been a period of marked activity. The leading societies of the world have debated the subject, many papers of value have been published, while experimental study has been prosecuted to a degree greater than ever before. Few conclusions, however, have been reached which are universally accepted. On the contrary, there is wide diversity of views upon some of the most important points. Even experimental investigators have not agreed, and practical men have reached conclusions diametrically opposite."

The importance of this subject to the profession at large, with the wide difference of opinion, as indicated by the above history, and the manifest variance in agent or agents used, manner and detail of administration, etc., as presented in our own small medical circle, with the added advantage of an interchange of ideas and experiences upon this or any other practical subject, is my object for presenting this topic.

I desire first, in a few words, to refresh your memories as to the leading comparative characteristics of chloroform and ether. Chloroform is a far more powerful vapor, a smaller quantity being required to produce anesthesia; it is much pleasanter to the patient during the administration; is also more prompt and enduring in action, thus procuring a more manageable subject to the administrator and operator. Indeed, were it not for the greater danger in the use of chloroform it would almost entirely supersede ether. Other disadvantageous characteristics of ether are its great inflammability—the vapor having ignited at a distance of 15 feet, thus rendering its use dangerous by artificial light, or with the actual cautery. Its known irritative qualities, and even danger in all respiratory troubles, especially of the aged, which may be an immediate or a more remote result.

I deem it unnecessary for the purposes of this paper to go into the history of the controversy as to the relative safety of chloroform and ether. The result of long homilies is summed up in these statements: That absolute statistics are lacking as to the relative safety of the two; though it is a fact that a much larger number of deaths are attributable to chloroform. That with the latter agent the blood pressure and the action of the heart are liable to great and sudden irregularities, and that frequently the latter stops without warning, events which seldom occur under ether. The accepted view of a few years ago that ether death is always by the lungs, and chloroform death always by the heart, is not tenable according to the deductions of to-day, as drawn from clinical experience and the latest investigations.

After exhaustive and painstaking experiments, Wood and Hare agree upon and promulgate the following conclusions as to chloroform: That it is a powerful depressant poison, acting sometimes on the respiration, sometimes on cardiac action, and sometimes on both together; that it surely causes death by paralyzing the heart; and finally (which I desire you to especially note, believing it to be the most important conclusion of all), that the danger of cardiac arrest by this agent is in direct proportion to the concentration of the vapor and the rapidity of its administration

Dr. MacWilliams, in an important report to the British Medical Association of his experimental study, arrives at the following deductions: "Experiments showed, besides the usual fall of blood-pressure and marked diminution in force of the auricular and ventricular contractions, a decided dilatation of the organ. This dilatation was a constant feature; it affected all the cavities; they were imperfectly emptied. This change of form, too, was remarkable for the suddenness and early period of its occurrence, and was often seen when but a small amount of chloroform had been given. Crucial tests were made to determine that this change was not due to any accidental or concomitant cause or causes, but was the direct effect of chloroform upon the heart itself."

The conclusions, then, were that chloroform acts directly upon the heart, causes a marked depression of the cardiac muscle, a reduction of its tone, a relaxation of its walls, and an impairment of its functional activity. It was also proved that changes in the circulation frequently first gave warning of danger, and often before the respiration was affected. A further important point of this report is the proof it gives that the rate and depth of respiration influence the effect of chloroform more than any other factor. By rapid and deep breathing an overdose may speedily be taken, and due dilution (please note this) of the vapor with air is not, therefore, a guarantee against accident.

In MacWilliams' concurrent study of ether, its effect was shown to be in marked contrast with that of chloroform. It caused but little change in the action or in the form of the cardiac organ. Dilatation sometimes occurred, but then only in slight degree, and when the ether was given in large amount and suddenly. Another investigator, Kappeler, made a sphygmographic study of the various anesthetics on patients, and obtained results which correspond closely with the above. He observed a noteworthy difference in the pulse-curve under ether and chloroform. The depression which always took place in greater or less degree with the latter, only occurred with the former in half the cases, and then but in slight degree. The observations showed that in its slight effect upon the pulse ether is an exception to all other anesthetics; yet in profound and prolonged anesthesia similar changes occurred with both, so that while death from syncope will occur less frequently under ether than under chloroform, such a death is, from the pulse-curve in ether, very possible.

In passing let me remark that sudden deaths took place upon the operating table long before anesthetics were used, and that not all deaths which have occurred since their advent can be laid at the door of the anesthetic used. These deaths have been attributed to the shock to the vital organs by the powerful and sudden surgical impression.

Now, as a result of a consideration and comparison of these deductions from the latest experiments as promulgated by the most authoritative observers, we may draw the following general conclusion: That while chloroform is far more dangerous than ether, it is less irritating and more pleasant to the patient, and, if no dangerous symptoms are manifested, more satisfactory to the administrator. It may be said the profession accepted that assumption before these investigations were undertaken. Wherein, then, lies the advantage of this further study of them? In the fact that while the general conclusion arrived at may be the same as that accepted before we began the investigation, yet we have arrived at a more accurate and comprehensive knowledge of the manner in which each agent acts, and how and what effect produces the dangerous or fatal result. We are, therefore, better prepared to avoid, to mitigate, or, if possible, to prevent these unpleasant effects.

Given no one anesthetic which produces the desired result and is free from the danger of chloroform on the one hand, and the disagreeable and irritative effect of ether on the other, I am led to believe, until such an agent is discovered, that our best anesthetic will be found in a direct or modified mixture of these agents.

In proof of the assertion that I am not alone in my opinion, let me enumerate the mixtures already before the profession: The A. C. E. mixture—alcohol one part, chloroform two parts, and ether three parts. Vienna mixture—ether six parts, chloroform one part. Billroth mixture—chloroform three parts, ether and alcohol each one part. The giving of a narcotic previous to the administration of the anesthetic, which is termed mixed anesthesia, may also be included.

As it is unnecessary to consider each of these separately, in that the arguments which apply to one will, to a greater or less extent, be applicable to all; and further, as I not only deem the mixtures preferable to either chloroform or ether alone, but give a marked preference to one of these, I shall take up only the A. C. E. mixture.

To preclude any misunderstanding, I wish to say that I concede there are exceptional cases where, on account of certain conditions, either chloroform or ether may be most applicable; but these are exceptions, and exceptions only prove a rule. We are looking for the best general anesthetic, and in the present status of the subject, I believe it has been found in the A. C. E. mixture.

Let us for a moment examine the composition of this mixture. We notice that one-half the volume is ether, one-third chloroform, and one-sixth alcohol. In other words, ether is the body of the mixture, chloroform is the stimulating active principle, while the alcohol is the governor or controlling element.

It has already been stated that cardiac arrest from both these anesthetics was in direct proportion to the concentration of the vapor and the rapidity of its administration; and, that with chloroform due dilution with air was not a guarantee against accident in deep or rapid breathing. If, then, dilution with air does not reach the case, what more logical dilution than that of the more active and dangerous, with the safer and less volatile fluid, and how much more is safety enhanced, when to this mixture we add a further dilution of alcohol, that it may modify the rate of evaporation of both the more volatile constituents.

Sansom found that alcohol had the greatest effect in sustaining the heart's action during the influence of chloroform. He found it impossible to kill with chloroform, a frog which had previously inhaled the vapor of alcohol. To demonstrate that I am not alone in my estimation of the value of this mixture as an anesthetic, it is only necessary to refer to the report of a committee of the London Medical and Chirurgical Society on this subject. In its investigation of the mixtures, the committee established the facts that they are as effective as pure chloroform, that they are safer when deep and prolonged anesthesia is to be induced, and that there is a more uniform blending of the ether and chloroform when combined with alcohol, with a more equable escape of the vapors and a stimulating and sustaining action on the heart. In addition, we find the A. C. E. mixture has been advocated by the *Lancet*, and by Eastes, Buxton, and Hewitt; with a growing tendency among the more recent authorities to advise its use under many circumstances.

Having accepted the assertion that dilution of the vapors prevents powerful and sudden impressions, from which we have seen the danger from both chloroform and ether arise, thus lessening the chance of passing the danger line so readily from carelessness or any influence causing irregular administration, we may go further and say: the action of anesthetics may be hastened and their effects prolonged, with a less amount, by narcotics previously administered. Morphine and atropine is the best combination of these narcotics, and the most effective manner of administering them is hypodermically.

"Mixed anesthesia," Reeves says, "is the best term for this combined effect of these two classes of agents, the result being rather an addition of the influence of one to the other, than a modification. The early stimulating effect of morphine, shown by increased blood pressure, is antagonistic to the depressing effect of the chloroform, and is further aided by atropine, in itself a powerful stimulant of heart and circulation."

I do not know that I can better present the arguments in favor of this method than by quoting the same authority, where he sums up the advantages presented in the previous administration of narcotics, as follows:

1. "Emotional excitement, always distressing, sometimes dangerous, very much lessened, if not abolished.

2. "Anesthesia produced more rapidly, maintained more easily and steadily, and with a much smaller quantity of the agent.

3. "The period of excitement is moderated and shortened; with hard drinkers, an important point.

4. "Vomiting believed to be less frequent and severe.

5. "Absolute quiet of the patient secured, a point of great value in delicate operations. Bernhard says: 'In the dog, the lingual artery can be tied at its point of emergence, under mixed anesthesia, an operation which cannot be performed under either morphine or chloroform alone.'

6. "The stage of recovery is quieter, with greater freedom from pain of the operation."

In fact, there can be no doubt of the high value of this method as a convenience to administrator and surgeon, and as a source of safety and increased or more certain immunity from suffering to the patient.

The foregoing conclusions being proved, I think I have established the fact, that the A. C. E. mixture, augmented and preceded, as I believe all anesthetics should be, by a hypodermic of morphine and atropine, is safer than either chloroform or ether alone. It is as effective as either, while less irritating and more manageable than ether, as well as pleasanter to the patient, and more satisfactory to the administrator. In conclusion, I will say that in a practice of over fifteen years, necessitating many administrations of an anesthetic, under almost all circumstances possible, the A. C. E. mixture, preceded by a hypodermic of morphine and atropine, has ever been my general anesthetic. I have yet my first fatal case to record, and but few where any dangerous symptoms were experienced.

1131 I street.

HYSTERICAL MANIA—REMOVAL OF CYSTIC OVARY—RECOVERY.

By O. H. Hund, M.D., San Francisco, Cal.

Mrs. S——, 34 years of age, an American of good family, had been married for 11 years, and was sterile. She first menstruated at 16 years, and had also had dysmenorrhea slightly for the first years of her adult life. This was much aggravated after her marriage. She was subject to attacks of pelvic pain and metrorrhagia; flow lasted for nine or ten days, though not severe. For the first eight years of her married life things went along tolerably well. The last three years, however, nervous symptoms commenced to develop; first intermittent headache, which gradually increased in severity; then extreme irritability. She became very emotional and easily depressed. After awhile her sensitiveness increased, with at times violent extremes of feeling. The last three months there was maniacal excitement.

When first I saw her, October 1, 1894, she was to be sent, by the advice of several physicians, to the insane asylum. She was very much excited and declared that she was in no need of any physician, her health had never been any better, etc. She told me that her food was poisoned, and commenced to break the dishes and lock the doors. I asked her a few questions about her condition, but obtained only negative answers. She said that some one was endeavoring to injure her character and so on, and finally became very exclusive. I insisted on an examination, but did not succeed at my first visit.

On October 2d I made an examination under ether and found a swelling in the left iliac region, which was very sensitive, even under the anesthetic. I advised an operation at once, which was accepted, after consultation with a confrere, who, however, did not expect any benefit to her mental trouble from it.

The operation was performed October 4th, with the assistance of Dr. J. Friedrich, of New York, Dr. Geo. W. Rachel, Dr. M. Krotoszyner, and Dr. Wm. J. Hawkins. After making the abdominal incision the cystic left ovary was exposed. There were adhesions with the omentum; these were ligated and separated. The peritoneum was thickened. The pedicle was then ligated and the tumor removed. The bleeding from the adhesions was controlled by pressure with sponges. When all bleeding had ceased the wound was closed and dressed in the usual way. The operation lasted about 45 minutes. She soon recovered from the anesthetic and did not exhibit any depression. She slept well, without morphine.

Her condition improved from the time of the operation. The pulse the second day was 86, temperature 99.3° F.; no vomiting. The temperature never rose above 99.4° F. Five days after the operation her bowels were moved by enema. On the fourteenth day she left her bed, and a week later was able to walk. She was discharged at the end of the fourth week, feeling perfectly well. She has since had no return of her mental trouble, has gained flesh and strength surprisingly, and does not remember anything about her illness. No medicine, except laxatives, was used after the operation.

Regarding the etiology of diseases of the brain and sexual organs I take it for granted all will agree that insanity is often caused by diseases of the genital apparatus. The majority of all cases of insanity arise from conditions and circumstances which depress and exhaust the nervous system. Extraordinary functional activity of the sexual organs involves a great demand upon the whole organism. In most women mental depression to a greater or lesser degree is experienced at the menstrual period from causes entirely physiological. Insanity always impairs the general nutrition of the body and disorders innervation. Some inherited susceptibility of the nervous system must be assumed in order that any uterine or ovarian disease may produce such functional mental changes. In the first manifestations of the mental derangement the brain is affected only functionally, but destructive molecular changes are likely to occur insiduously in time.

An irritation starts from the site of an organic lesion and proceeds to the nerve cells at the base of the brain and the upper part of the spinal cord. According to Horatio R. Storer, reflex action of the sympathetic explains many of the diseases of women. Any irritation will travel on the lines of least bodily resistance, and the degree of transmission depends also on the subject affected. Through this irritation the nerve cells undergo alteration of their nutrition, and after a time acquire a morbid excitability, which is the life of the disease.

A careful consideration of this subject has led to the conclusion that acute affections of the brain and nervous system, that are wholly due originally to disease of the sexual organs, will be relieved in a large majority of cases by curing the primary affection.

In the *Medical News* of October 5, 1895, Dr. Isabel M. Davenport writes on the "Relation of Pelvic Disease to Mental Disorders." She gives the history of 5 cases which came under her observation at the Eastern Illinois Hospital for the Insane. She also refers to Dr. Geo. H. Rohé's report on 22 of the 34 cases of this kind on which the latter operated at the Maryland Hospital for the Insane. Of Dr. Davenport's 5 cases, 2 were not improved (1 of nymphomania and 1 of epilepsy); 2 recovered completely (1 of nymphomania and 1 of recurrent puerperal and acute mania), while the fifth (recurrent mania) has been partially removed.

Dr. Rohé's 22 cases gave the following results: Puerperal mania—6 cases; recovery in 3 and improvement in 1. Simple mania—1 case; slight mental improvement. Hystero-epilepsy with mania—2 cases; recovery in 1; operation in the other too recent to give results. Epileptic insanity—3 cases; 2 deaths; slight improvement in 1. Periodic mania—3 cases; decided mental improvement in all. Paranoia—1 case; with slight, but not permanent improvement.

Thus, in those 22 cases, there was recovery in 5, and decided improvement in 7. It cannot be denied that Dr. Davenport's plea for giving every one of these patients the chance of recovery or improvement which an operation may afford, is founded in reason. This is especially so when the form of insanity is one that is strongly influenced, if not caused by the sexual sphere.

716 Howard street.

PHYSICAL DIAGNOSIS.

By H. D'Arcy Power, M.D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

Physical diagnosis in its widest sense necessarily implies the recognition of all objective signs whereby disease is made manifest; it thus includes pathognomy, decubitus, gait, tremor, and other conditions manifest to the unaided eye. Of these it is not my intention to speak—not because they are unimportant; on the contrary, they were the only data for diagnosis available to our predecessors, and men whose names are immortal gained their laurels by their aid. To treat of these would unduly extend our field, and I will confine myself to mediate physical diagnosis.

It is not unusual to hear comments on the way that surgery has outstripped her elder sister—medicine—as an exact science, and yet I am greatly inclined to dispute the assumption. When we consider that the factors that underlie successful surgery are comparatively few in number, and require no extraordinary ability to apply them, it appears to me by no means wonderful that surgery should seem to have practically completed her growth, while medicine is still a child struggling with a burden of unsolved problems. Consider the enormous extent and complexity of the medical field, the amount of investigation, experiment, and analysis required to reduce its complex phenomena to the definite relations necessary to constitute an exact science, and then bear in mind what has already been achieved. When this is done, I maintain that, whether viewed from the standpoint of investigation accomplished, or of suffering relieved, medicine should have still the first place in the consideration of the general practitioner and the public.

Troubles requiring surgical aid are the exception; those requiring the skill of the physician are the rule; they make up the bulk of practice and the bulk of human suffering; they bring all but a fraction of us to our final end. I hold that the time and attention devoted to their solution should be commensurate to their importance. This I am inclined to think is not given to them to-day, especially in the United States. The glamor of surgical success, the honor and pelf the public accord the successful operator, has seduced the general practitioner. Many men will conduct a medical examination with a carelessness and actual want of knowledge of established methods of examination, and a disregard of the present status of medical science, that they would blush to be guilty of in the management of a surgical case.

The final consequences of a commencing cardiac murmur overlooked, of a creak in the apex of the lung unrecognized, are not less fatal, and entail a greater total amount of suffering than may arise from a dirty suture in the abdominal cavity, or an untied vessel. I do not propose to consider medical diagnosis in any minute detail, but merely to review the present methods of research in the light of my own experience, outlining what I believe every physician should be able to do, and should do for his patients.

Before passing to details, let me insist on what I have reason to believe is too often neglected, namely, the placing of the patient in such a position that an examination can be properly carried out. A surgeon does not try to diagnose a fracture of the neck of the humerus through a coat sleeve; but there are physicians who will attempt to recognize a cardiac murmur through a woolen shirt, or to look for the first signs of pulmonary trouble by exposing two inches of the top of the chest; and then, in that limited area, amidst the rubbings and creakings of half a dozen garments, seek for a condition that may require a fine ear and some experience to detect under favorable circumstances. It is better to abstain from any attempt at physical diagnosis than practise it under conditions that make it a misleading farce. The same criticism is applicable to examinations of the abdomen and pelvis, where a distorted decubitus too often misleads the examiner. The first care of every diagnostician should be to have a correct position of the body and a clear field, and never give an opinion on an examination made in a hurry.

Lastly, and perhaps most important of all, is to know the normal body. Of all the sources of error that befool the practitioner and disgrace medical science, there is none so potent for mischief as the notion, that many possess, that they can search for the abnormal before they know the normal. It makes no matter whether you examine the heart, the lungs, the pelvis, or any other organ, the variants compatible with healthy function are manifold; and only when we have a working acquaintance with them is our opinion concerning abnormal variation of any value. "Never miss the opportunity to examine a healthy subject," is an old axiom of clinical teachers, and a sound one.

The only way the physician can do this is to make a general examination a matter of routine. I do not mean to say that every man who comes in with a stomach ache or a cold should be stripped and subjected to all the refinements of a full examination, but I do maintain that every patient who complains of more than passing symptoms should be examined as a matter of routine, even though the cause of his symptoms may seem apparent. The evident dyspepsia may then find its solution in a defective heart, or a cirrhotic liver; behind the nervous headache may lurk a contracted kidney and not business pressure.

Now let us glance rapidly at some of the fields wherein physical diagnosis is of the greatest importance. To begin with the abdomen, it must be considered in reference to its general cavity, and to the contained organs. The first point to be observed is, in order to get reliable data, there must be absolute relaxation of the abdominal walls. To obtain this the shoulders and pelvis must lie on the same plane, the legs be flexed, and any nervous excitement quieted. Even then it is often impossible to get rid of disturbing muscular reflexes; and if any question of importance is involved, such as the existence of a tumor, or the enlargement of an organ, the examination should always be made under an anesthetic carried to full narcosis. Those who have not used this method will be astonished at the difference it makes, and at how readily the outlines of organs may be palpated, even in stout patients.

Solid bodies in the abdominal cavity are detected primarily by palpation, and secondarily by percussion, or auscultatory percussion. The two latter methods are particularly applicable to defining the liver, kidney, and spleen, whose superior surfaces cannot be palpated. In delimiting the liver it is very important to avoid two common sources of error, namely, under-percussion over its superior border, and over-percussion at its lower edge. Above, the liver is covered with a thin layer of lung, which, unless the pleximeter be struck with sufficient force, masks the dull note it should afford; below, the edge of the liver is thin, and if too strong a blow be struck the underlying bowel note is heard. In either case the area of the liver is underestimated, and the careless diagnostician may discover an imaginary hepatic cirrhosis. In connection with this mapping out of solid bodies, I wish to call your special attention to the value of auscultatory percussion—that is, listening to the effect of percussion with the stethoscope. So immediate and marked is the change in tone when passing from a solid to a hollow organ, that with a little care, error is impossible.

Besides solid bodies, the abdomen may contain fluid accumulations. It ought not to be necessary to warn the physician not to mistake the ripple propagated over a mass of abdominal fat for that of ascitic fluid; but I have seen the error made by men who had been in the profession long enough to know better. The question can always be decided by pressing lightly at the middle line with the edge of a book or the hand, which will stop the superficial fat wave, but will have no effect on the deeper moving water wave. While the diagnosis of general ascites presents no difficulties, this cannot be said of localized collections of fluid. Tubercular peritonitis, hydrops of the gall bladder, hydro-nephrosis, ovarian and fibrocystic tumors, and even excessive liquor amnii present problems requiring great skill, experience, and thought—especially thought—to differentiate. If medical men whilst diagnosing would only think more, errors would be less common. Given a condition there can only be a certain number of causes for it, and a little sorting and thinking will generally reduce the most difficult case to one of two or three possibilities.

Many volumes have been written on the organs contained in the thoracic cavity; it has been the chief and perhaps the most difficult field of the diagnostician. Nowhere have greater results been achieved, nowhere is the path more beset with difficulties. In a general way it may be said that the diagnosis of diseases of the thorax is dependent on the correct appreciation of differences of sound, varying in degrees of loudness, pitch, and tone. Herein lies the first difficulty for many, to whom recognition of small differences of pitch and tone is not possible. We all know how greatly the differentiating capacity of the ear varies. Many can with difficulty distinguish between "Yankee Doodle" and "Home, Sweet Home," and do not know whether the orchestra has started a symphony or is tuning up. Others will instantly detect an instrument a trifle out of tune in the midst of a military band. The latter capacity is what is needful in the recognition of thoracic disease. The ear is required to detect minute differences in the presence of an orchestra of inharmonious sounds; and it is unfortunately true that with many, no such capacity exists or can be created. Still, as a musical ear may be greatly developed by practice, so a man poorly equipped by nature, may, in like manner, acquire considerable proficiency in the detection of abnormal sounds.

Granted that our diagnostician is a man with a normal ear, he has still difficulties to face. It is a general principle of acoustics, that large cavities produce sounds of lower pitch than small ones, that dense substances conduct better than loose textures; therefore, the size of the thorax and the thickness of its walls, as well as their density, will considerably modify the sounds that are produced in the cavity. Individual variation in this respect is very great, and unless made familiar by practice, and constantly borne in mind whilst examining, will lead to many and serious errors.

Take, for example, the differences that normally exist between the right and left side of the thorax, which are: (1) Greater capacity of the right side by about one inch. (2) Greater volume and thickness of its muscular coverings, owing to the greater use of the right arm. (3) The presence of the liver on the right side, which not only diminishes the area of resonance, but, acting as a damper, affects the pitch of all notes produced in the right thorax. (4) The larger size of the right bronchus. Note, now, the effect of these different anatomical conditions of the two sides. They cause the region of the right apex to yield not only a duller percussion note of higher pitch and smaller volume and duration, but the inspiratory sound is decidedly more bronchial and higher in pitch, and what is more noteworthy, both the spoken and whispered voice are better conducted; in fact, pectoriloquy is often fairly well marked. Lastly, owing to the greater size of the right bronchus, vocal fremitus is more marked on that side.

Here, then, we have all the signs that are diagnostic of the changes found in phthisis, normally present, to a slight extent, in the very region where that disease usually commences. Unless this fact is well borne in mind, the hasty diagnostician is very apt to mistake a normal condition for an incipient phthisis. As a corollary to this, the preponderant presence of these conditions on the left side would have all the graver import. On the other hand, if the diameter of the right thorax fall below that of the left, the probability of a pathological cause would be increased, as such a condition is the reverse of the normal. It is largely owing to the overlooking of such facts that so many errors are made.

I do not propose to speak of the different signs of fluid, consolidation, etc., but I would like to refer to the importance of proper procedure in percussing and auscultating. First, if small lesions are to be detected, it is of the utmost importance that the patient should be stripped; and it should be remembered that the detection of small initial lesions is vastly more important than the noting of gross disease, for the physician has a chance with the first, and can do but little with the last. The patient should be stripped; first, because there are quite enough befogging sounds produced inside the body, vibrations from contracting muscles, the heart sounds when you are examining the lungs, and the lung sounds when you are examining the heart, movements of gas in the intestines, etc., without adding to these distractions the creakings and crepitus of garments. Secondly, the thorax under percussion vibrates as a whole, the pressure of garments, especially corsets or thick vestments, dulls and raises the pitch of the sound in the same way a musical note is altered by stopping a string or a pipe. Another matter of importance is to invariably examine a patient in one position, otherwise different results will be obtained on different occasions, by reason of examining through different masses of muscular tissue.

In regard to instruments, good work can be done with very different forms; the great point is not to keep changing about. Personally, I think that a person should percuss with one finger for a pleximeter, and one finger for a hammer; the finger is the best pleximeter, because it is the most adaptable; it is the best hammer, because its force is most under control, and furthermore, your fingers are always with you. Still, there are conditions, especially where large areas of slightly varying dulness are to be compared, where the pleximeter is a decided advantage. The number of stethoscopes is endless. I prefer the binaural, but some of the greatest living authorities habitually use the single form. The advantage of the latter is, that sounds are propagated through the wood as well as through the air column, and for sounds of high pitch, wood is a better conductor. The binaural, with its soft rubber, vulcanite, and metal, is practically an air conductor only, and such sounds as do pass by the solid materials undergo alterations in passing from one medium to the other.

Passing from percussion to auscultation, we find that the normal rhythm of the heart may be replaced by murmurs. These murmurs may be due to: Organic diseases of the valves; intraventricular causes; dynamic causes; pericardial friction; cardio-respiratory friction. The organic murmurs are of supreme importance. In regard to them I can add nothing to the well known teachings of the textbooks; with care and experience there is no insuperable difficulty in their differentiation, and I strongly dissent from the statement that they are largely indistinguishable from non-organic murmurs.

Let us devote a few minutes to the latter. Intraventricular murmurs are rare; they are very weak and local, being only heard over the apex and base, and are not conducted. Dynamic murmurs are due either to weakness of the columnæ carnæ or to their irregular action. Among their common causes is anemia, chorea, sexual excesses, and the abuse of tea, coffee, and tobacco. They present no real difficulty to the careful diagnostician; like the intracardial murmurs they are weak and limited, and what is more diagnostic, they appear and disappear in an irregular manner. Pericardial murmurs have characters that are quite distinctive; they are creaky and superficial; they are not synchronous with any particular part of the cardiac cycle; they are not conducted, and they vary in character with change of position. Lastly, cardio-respiratory murmurs, which I have seen several times mistaken for organic murmurs, ought to be immediately eliminated. They only occur at the end of inspiration; they are always systolic and cease the moment the breath is held. So much for the impossibility of distinguishing between organic and non-organic murmurs.

In passing from the circulatory to the nervous system, we enter a field in which immense strides have been effected, but which is one of peculiar difficulty. It is not so much that the *technique* of the different methods is difficult; the application of measured electrical currents, to detect areas of degeneration; the determination of tactile and thermal sensibility by the esthesiometer or the application of hot or cold bodies; the estimation of paresis by the dynamometer are all very simple procedures, but the weaving of the data so obtained into a diagnosis is an altogether different matter. Not only is a perfect knowledge of the structure and distribution of the nervous system a *sine qua non*, but equally important is a knowledge of the action of the muscles, and of the effects of enervation on trophic changes. Of course we are all supposed to know these things, but as a matter of fact, we do not, at least for any length of time after our examinations.

For this reason I am inclined to think that the nervous system presents a legitimate field for specialism; but for a specialism which must be built on a wide experience of general practice, for no rational treatment of nervous disease is possible that fails to take into consideration the fact that nutritional changes for the most part underlie morbid nerve action.

I have no special points to comment on in connection with this subject unless it be to urge the value of a working knowledge of the ophthalmoscope. A little hard work in the beginning and you have a valuable servant. The physician should be able to detect the presence of atrophy of the optic nerve, so often accompanying tabes dorsalis, the hemorrhagic retinitis of Bright's disease, and the condition of choked disc which is almost pathognomonic of intracranial pressure, and which is often a valuable aid in the early and obscure stage of tubercular meningitis. In connection with this last disease I would refer to the value of that condition of cutaneous hyperesthesia known as the "tache cerebrale," which is shown by the development of a broad and very lasting stripe of erythema when the finger nail or the point of a pencil is drawn over the abdominal surface. It is generally present very early in tubercular meningitis. This disease recalls another method of diagnosis of which much has been written of late, viz: aspiration of the cerebro-spinal fluid in the dorsal region. I only refer to it to call your attention to certain statistics, by which it appears that this supposedly harmless procedure is followed by 5 per cent. of sudden deaths. Fürbinger reports that out of 5 cases of cerebellar tumor in which he used it, 3 died within the following 40 hours.

I will close these brief and rambling *orbiter dicta* with a reference to special instruments. I have already expressed the opinion that the general practitioner should have a working acquaintance with the ophthalmoscope, and I think that this is also true of the laryngoscope, but when it comes to such instruments as the end-ocystoscope, and the recently perfected gastroscope, I am inclined to think it is unnecessary labor, not because there is any insuperable difficulty in using them, but because the interpretation of what they reveal requires access to a mass of clinical material that no man in private practice can command, and failing which, wrong interpretation will be the rule rather than the exception.

This probability of wrong interpretation is one of the objections to the use of the microscope by the general practitioner for anything more than very simple determinations. Speaking from a daily use of this instrument for a period of 25 years, I am convinced that unless a great deal of time be devoted to it, the average man will frequently blunder. I in no way deprecate the giving of this time to an invaluable instrument of diagnosis and a delightful study, but I do deprecate the attempted use of it without that knowledge which only continuous practice can afford. It is better to diagnose Bright's disease from a puffy face and scanty urine, than to pin your faith to a cast that turns out to be a piece of fiber. Better diagnose phthisis as your fathers did, than affirm its absence because you have failed to find bacilli that you have either burned up or washed away in preparing the slide. In fact, the golden rule in diagnosis is to be perfect in such methods as you have the means of using, rather than to spread yourself over a field that you have not time nor opportunity to master.

I feel that the way I have dealt with this subject has been scrappy and unsatisfactory. I have said nothing new, but also nothing that I have not verified by experience. I have tried to present what I believe is the minimum that a conscientious physician should carry out in the examination of his patient. I cannot avoid the belief that this standard is not recognized by many as necessary; and I am convinced that when it is, we shall hear less about the stationary condition of medicine, we shall have less therapeutic scepticism and aimless expectant treatment, our materia medica will become more rational and more conservative, and we shall move more rapidly toward an exact medicine.

806 J street.

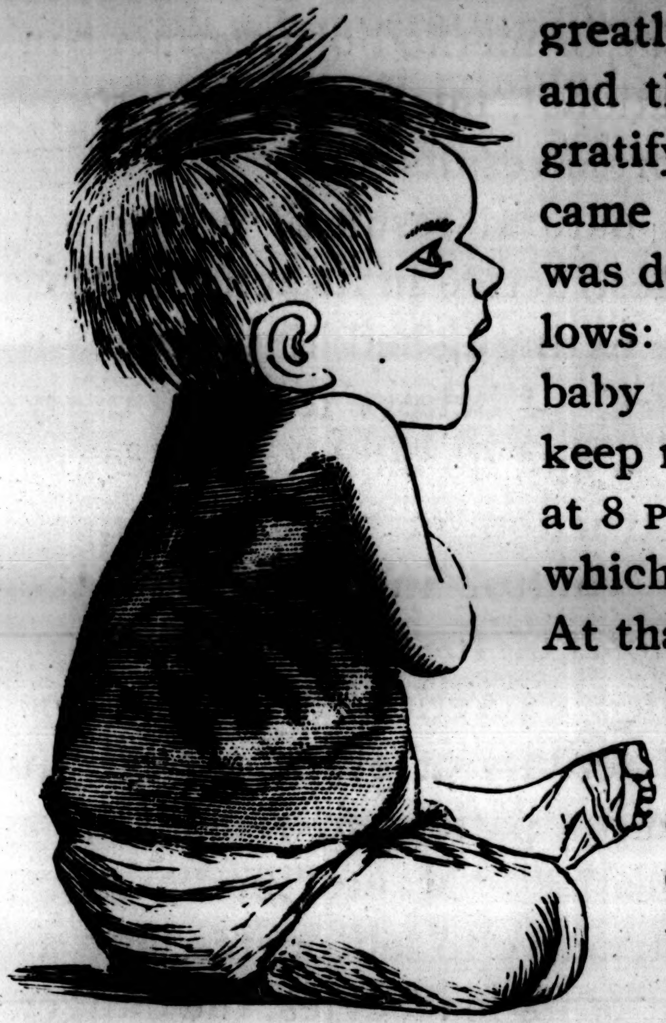
RACHITIS WITH MARKED DEFORMITIES IN AN INFANT THIRTEEN MONTHS OLD.

By Wm. Fitch Cheney, M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, and Chief of the Children's Clinic, Cooper Medical College, San Francisco, Cal.

Florence R—— was brought to the Children's Clinic of Cooper Medical College, on April 15, 1896. She was then 13 months old. Her mother told us that the baby had never thrived from birth, but had had frequent attacks of vomiting and diarrhea, a constant cough, and perspired freely about the head when asleep. There was a history of long continued improper feeding, beginning with condensed milk and running through various mixtures of gruel, "beef tea," cow's milk and water—all of them unfit. The infant had no teeth and could not sit up alone.

Physical examination revealed a shocking state of malnutrition, accompanied by deformities of the skeleton, unusually marked, considering the age of the child. The anterior fontanelle was widely open; the coronal suture patulous throughout its entire extent; the sagittal suture also patulous as far back as the posterior fontanelle, which was also distinctly open. There was a characteristic "pigeon breast," with protrusion of the sternum and a deep groove along each side of it, due to depression of the ribs. The chest was distorted and the spine curved antero-posteriorly so as to produce decided kyphosis in the lower dorsal and lumbar regions. There was also enlargement of the epiphyses at the wrists, and beading of the ribs.

The infant was ordered a mixture of top-milk and oatmeal water, and given an emulsion of codliver oil. For a time she improved greatly in every way under this treatment, and the change in her condition was very gratifying. But one morning the mother came to the clinic alone, to tell us her baby was dead. Her story of the end was as follows: On the afternoon of May 6th, the baby began to vomit her food and could keep nothing on her stomach. She was fed at 8 P. M. and then retained 5 ounces, after which she slept until 4 the next morning. At that time she took 3½ ounces of food and fell asleep again. At half past seven the mother found the baby rigid and apparently in a spasm, from which she could not be aroused. No physician was summoned.



The accompanying engraving gives a fair idea of the deformities of the chest and back, which were certainly unusual in so young an infant.

906 Polk street.

PYREXIA, AND ITS CONTROL.

By G. H. Aiken, M.D., Fresno, Cal.

Read before the San Joaquin Valley Medical Society.

To what extent fever heat is salutary, or how far it is deleterious, is an unsettled problem. The question I wish to bring before you for discussion is, whether in the treatment of fevers it is desirable to limit or control pyrexia, or to treat them symptomatically, merely guiding the disease to the end, let the issue be what it may?

There are not a few, and among them some very eminent in our profession, who contend that pyrexia is a conservative and protective process that should not be checked. They claim that a low temperature decreases vital activity, and lessens the powers of resistance against infection. That fever heat, with its consequent functional activity, hyper-nutrition, and cell irritation, is nature's method of elimination and treatment. That increased leucocytosis is a much desired result, as fever causes increased glandular activity, thereby stimulating leucocytosis, and aiding in destroying infection. In short, that pyrexia is not a mere symptom or by-product of a diseased organism, but a direct benefit, a powerful stimulant to the heart, giving an increased blood supply to the tissues.

This is a most plausible and ingenious theory, but like many theories in medicine, it is a miserable failure in the light of clinical results. I have no respect for any theory or method of treatment in disease which is not consistent with a rational, intelligent, and practical application at the bedside by supported results.

Pyrexia is a coincident symptom, the natural result of a diseased action, neither beneficial nor desirable, destructive in its action, baneful in its results, a consuming fire, to be extinguished if possible; if not, to be controlled and held in abeyance. I believe it to be purely a matter of cause and effect, as much so and no more to be desired than general anasarca due to renal obstruction, or to cardiac insufficiency. Pyrexia does not limit nor control infection; on the contrary, by the destructive metamorphosis of tissue, disturbance of function, arrest of nutrition, and retarded excretion, it is a menace to the life of all tissue and to the vital activity of every organ. It has been aptly remarked that "to permit a patient to remain in a high temperature, is to consent to his death." Maurel has demonstrated that a high temperature is destructive to leucocytes, and as an animal cannot survive the destruction of its leucocytes, the danger from high temperature is obvious.

In the controlling of pyrexia we should not lose sight of the causative principle and coëxisting conditions. No intelligent physician would think of trying to reduce the pyrexia of pneumonia to normal during the stage of hepatization, or that of typhoid fever with intestinal lesions. Occasionally we meet with a condition which we call thermal fever—a morbid process little understood, a pyrexia absolutely beyond control. A condition in which every function is out of balance, and the entire human machinery seems to be running riot. Happily these cases are infrequent.

Let us consider, briefly, some of the effects of fever, that we may the better appreciate the importance of its control.

Fever heat, or a temperature above 98° C., is no doubt the effect of some disturbance of the central nervous organization, or, if you choose, the thermo-genetic or vaso-motor nerve centers. It is the unbalanced condition between heat production and heat dissipation. Whether the morbific agent be irritative, or bacterial, idiopathic, or traumatic, the effect is first centered on the nervous system.

The second most pronounced expression is on the circulation, then follow disturbance of function, arrest of nutrition, tissue waste and chemical changes in the blood, auto-infection from retained products of decomposition, and the many complex conditions modified by the specific causative principle. Aside from the effects on the heart, from impoverished blood and lessened nerve force (nature's fuel for this muscular engine), there is a marked increase in work thrown upon it. Each beat of this organ imposes a lifting force of 6 ounces, and with a temperature above 103° F., we may reasonably expect an increase of 20 per minute in the pulse rate, which, multiplied by 6, and by the number of hours and minutes in a day, gives the enormous total of 10,800 pounds extra work thrown upon this already weakened organ. In long continued fever, with high temperature, it is not strange that the patient wears out, and that death claims its victim in truth by heart failure.

One of the most deleterious effects of long continued high temperature, is the accumulation in the system of morbid products from rapid tissue change, in excess of the elimination, causing a thermotoxic paresis, and irritability of the nerve centers. The additional work necessarily imposed on the kidneys, with their function and nutrition already impaired, is not fully appreciated. None of the visceral organs have such an important task to perform—none are so over-burdened. Muscular debility, consumption of nerve force, and tissue waste, are in a direct ratio to increased fever heat.

The reduction of high temperature calms delirium, quiets muscular tremor, arrests nervous irritability, lessens prostration, and diminishes the liability to complications. It is a well established fact, that the relief of pyrexia exercises a beneficent influence on the general condition of the patient, though the cause of the fever may not have been removed. We are all familiar with the welcome expression on entering the sick room, "Oh, Doctor, I am feeling much better to-day," and without using the thermometer, we know there is a lowered temperature. But who ever heard such an exclamation from the lips of a patient with a temperature ranging from 103° to 105° F. I had a little patient last season, suffering from a severe attack of typho-malarial fever, who, when the temperature reached 103° F., would be dull, listless, and without interest in anything, but in two hours after taking an antipyretic of phenacetine, antikamnia, and salol, would sit up in bed, and ask for her playthings. No better proof of the value of controlling pyrexia exists, than the comfort and improved condition of the patient.

Within what limit should fever heat be held? The danger point in fevers is generally regarded to be 103° F. Danger here is a relative term, referring more particularly to the destructive secondary influence of fever, when long sustained above this point. If any degree of pyrexia is compensatory or desirable—which I very much doubt—it is certainly not that above 103°. When this point is reached, from whatever cause, it should be controlled, and the measures necessary, though they be powerful antipyretics, are not as harmful to the patient as to permit the fever heat to continue unrestrained.

It is especially important to control the pyrexia in long continued or "self-limited" fevers. This latter term has now become obsolete, as there is hardly a disease that is not modified by treatment. I believe that many cases of typhoid fever, with no special lesions or complications, are sacrificed unnecessarily, by permitting a long continued high temperature. They simply wear out. It is my experience that a patient will sustain a temperature of from 100° to 103° F. for a considerable time, without danger of complication, and with little tissue waste, but it is quite the reverse where it runs above this point. I have seen patients convalescing from typhoid fever, with probably some intestinal lesion, yet the system would sustain a temperature of two or three degrees above normal for part of the 24 hours, while they gained in flesh and strength.

A young German, of naturally robust constitution and good physique, presented himself at my office a year ago last autumn suffering from so-called "mountain fever," contracted ten days before. He looked haggard and emaciated, and could hardly pull himself up the stairs. His temperature at 3 P. M. was 104° F.; he had severe headache, tongue badly coated, bowels constipated. I gave him calomel and soda in 3 divided doses, combined with phenacetine to reduce the temperature. He was to commence with a tablet at 11 P. M., on decline of the temperature, and to take one every two hours for 5 doses. He called the next afternoon, looking much brighter, and, to my astonishment, had no fever. Upon inquiry, I found he had, by mistake, taken 10 instead of 5 doses, as directed, but with the happy effect of annihilating the fever, which never returned.

He had taken during the remission $\frac{5}{12}$ gr. ext. of aconite, $\frac{10}{12}$ ext. gelsem., 24 grs. phenac., and 36 grs. quin. He remained in town a few days, gained flesh and strength rapidly, and returned home to resume work in one week. This, to be sure, is a single, isolated case, but there is a lesson in it. Which was the better method of treatment, this, or the conservative, expectant plan? Under the latter, with a few grains of quinine, a mild diaphoretic, etc., I believe this patient would have dragged out a miserable existence in bed for two or three weeks, with a temperature ranging from 100° to 104° or more, followed by a protracted convalescence, unless, perchance, called home by "heart failure."

I do not believe in dosing for the mere sake of dosing, neither do I believe in adopting every new medical fad, or method of treatment.

I do believe in the judicious use of positive remedies, and in fighting disease as an enemy to be conquered, employing all of our available forces, and waging an aggressive campaign. I believe with our fever patients, that the pyrexia should always receive careful attention, and be reduced to the lowest possible degree consistent with the coëxisting conditions, and the possible idiosyncrasies of the individual. With the clinical thermometer, and numerous effective antipyretics at our command, we are virtually masters of the situation, and I believe the day is near at hand when fevers, from whatever cause, in the absence of structural changes and pathological lesions, will not only be controlled, but the essential fever will be aborted.

It is not the purpose of this paper to discuss methods of treatment. Results are what we desire, and the death rate will soon determine the value of a method or remedy. The ideal treatment would be antiseptic, antipyretic, sedative, and eliminative. In short, it must neutralize or destroy the poison, and readjust the normal balance between heat production and heat loss—between function and nutrition.

1829 K street.

RETRO-DISPLACEMENTS OF THE UTERUS.

By H. Kreutzmann, M. D., San Francisco, Cal.

Read before the Medical Society of the State of California.

According to the programme I am to read a paper on "Displacements of the Uterus." This is an error; the title should read "Retro-displacements of the Uterus." It is the consideration of surgical interference in the latter malposition that I wish to bring before you. I cannot, in a short paper, enter into a full discussion of the subject. I shall only give you personal experiences and personal opinions about some questions in relation to this topic.

The first and most important question is, What significance has a retroflected or retroverted uterus as a disease, or as a cause of disease, as a cause of complaint, and of suffering in women? My answer is that a healthy, movable, retroplaced uterus in normal surroundings, has no significance whatsoever as a causative factor for complaint or sickness; that it is merely an abnormity of position without any importance.

If the uterus, the adnexa, the parametrium, the pelvic peritoneum, or the pelvic viscera be diseased, then again the abnormal position has nothing to do with the etiology of these diseased conditions; but the suffering may be intensified, and the symptoms aggravated, through an abnormal position of the uterus. If the retro-displacement is associated with prolapse of the uterus, the symptoms complained of are due either to the injured condition of the pelvic floor, vaginal outlet, or uterus, or directly to the dragging of the descending uterus.

When adhesions have formed between pelvic viscera, pelvic peritoneum, uterus and adnexa, and when the uterus is fixed in an abnormal position, we can understand the significance of this fixed abnormal position as a cause for distress and suffering. When we remember that physiological acts of the pelvic viscera, such as emptying and refilling of the bladder and bowels, the menstrual congestion of the genital organs, the change in the position of the body are necessarily accompanied by more or less pulling and dragging upon the immovable uterus and adnexa the explanation of painful symptoms, is obvious.

It is my experience in family practice that has led me to this conviction of the harmlessness of a movable retro-displacement. I have seen, time and again, women with retro-placed uteri enjoying perfect health, menstruating without any difficulty or irregularity, and, if they wanted, bearing any number of children, in fact, not differing in the least from women with normally placed uteri.

It seems utterly illogical to me that in one woman this abnormal position should not give rise to any manifestations whatever, and that in another it should be the cause of innumerable evils. If we scrutinize these cases carefully we will invariably find either actual disease of some other organ of the body, some fault of the constitution, or some derangement of the nervous system of our patient.

This latter category of cases is especially frequent. Neurotic conditions, hysteria, neurasthenia, are a fruitful source of the many complaints erroneously attributed to a retroflexion of the uterus. The gynecologist has encroached upon the field of the neurologist, the doctrine of reflex-neuroses has prevented a clear understanding of neurotic conditions in female patients. Alternately the mere existence of the clitoris, the mere presence of the ovaries, a slight erosion or catarrh of the womb, a physiological tear in the neck of the womb, having just as much bearing upon sickness as a tear in the ear, slight changes in the position or structure of the ovaries, and many other things have been proclaimed as the cause of all evils woman is heir to.

We must discard this erroneous idea of reflex neuroses. We must strive to make a correct diagnosis of the nervous affections, and not be satisfied in attributing neurotic conditions in our female patients to the existence of the ovaries, or to a retroflexed uterus, or to some other insignificant, harmless abnormity of the female genital organs.

The number of female patients suffering from neurotic conditions is enormous. These are the patients where false calculations have been made and are constantly being made in regard to slight affections of the genital organs. *Post hoc, ergo propter hoc;* because such a patient has a retroflexed uterus, this retroflexion is at the bottom of all her complaints. How easy it is to manage these cases. You simply put the uterus in the normal position, keep it there by means of a specially-named pessary, or an improved operation, and the patient is cured. You say so and your patient will believe you, for some time at least. If, however, you will take the trouble to examine the same patient after some time, you may find her doing very well, with her uterus as nicely retroplaced as it was before The contrary may happen if the patient is not fully under your hypnotic influence. The uterus may be kept in place wonderfully well through a pessary, and yet the patient has exactly the same complaints as before.

Progress on this line seems very slow; the gynecologist seems an easy prey to every new fad. Still progress is made, and I am thoroughly convinced that the time will come when a backward position of the uterus will be looked upon as an insignificant abnormity, just as has come to pass with the much talked about, much treated anteverted uterus. It would, probably, be much better by this time were it not for the clamorous advertising of a few noisy inventors of new infallible operations for the cure of this affection.

I do not pretend that these protests, which are decidedly heretical in orthodox gynecology, are original with me—members of this Society have argued in the same manner before you. Dr. Charlotte Brown read a paper last year upon "Rest as a Therapeutic Means in Gynecology;" and Dr. J. W. Robertson's remarks upon the suggestive influence of many gynecological therapeutic measures and operations hit the mark.

At the last meeting of the German Gynecological Society held at Vienna, in 1895, Dr. Theilhaber brought the subject of the insignificance of retroflexion of the uterus before that learned body. Prof. Salin, of Sweden, in an elaborate article published in *Hygea*, gives the reasons why he considers a retroflexion insignificant; so does Dr. Banga, of Chicago, in the *American Journal of Obstetrics and Gynecology*. Dr. Graefe, of Halle, states that, in young girls especially, the manipulations for the reposition of a displaced uterus do more harm than good. Dr. John Madden, in the *Journal of the American Medical Association*, gives a synopsis of a long list of men most eminent as teachers who hold the same views. In fact, the number and prominence of those who deny any importance to retroflexion as a cause of disease, is just as great as of those who look upon it as the etiological factor of a great many evils—constipation, backache, dysmenorrhea, sterility, and miscarriage.

From my remarks it will be apparent that aside from fixed retropositions, uteri displaced, at the same time, backward and downward treatment of the abnormal position is unnecessary and superfluous. Still, I must confess that we have to treat retro-displacements of the uterus, even if we consider this abnormity insignificant to us, simply because it is not insignificant in the minds of our patients.

The instructions at the clinics of our universities and colleges, and the teachings in the text-books, are that retro-displacement of the uterus is the cause of many and severe complaints, and that it must be remedied. Thousands of physicians yearly enter the practice of medicine fully imbued with the great importance of this very frequent ailment, and the public consequently considers "falling of the womb" as something most terrible.

It is not my ambition to educate the public in matters medical, and so I treat retroflexions, hoping through rectification of the malposition to remove the cause of worry and introspection from the patient's mind. I know full well that through so simple a procedure as replacing a displaced uterus, I cannot cure hysteria or neurasthenia—it is only a factor in the general treatment that must be instituted against these neuroses. What treatment, then, should be carried out in the different cases of retro-displacement of the uterus? Answering this question in a general way, I do not hesitate to say that I consider surgical treatment as the ideal one.

I am fully prepared to hear that gynecology has become altogether too surgical—but this is an erroneous idea. Progress in gynecology was made from the very time that surgical measures were adopted in the treatment of diseases of women. Aside from inflammatory affections and some of their sequelæ, gynecological practice must necessarily be surgical. You cannot cure neoplasms of the ovaries or uterus with medicine; you cannot cure injuries to the uterus and vagina with internal remedies, nor abscesses by administering antipyretics. We should confine ourselves strictly to real diseases and diseased conditions of the genital organs, when working as gynecologists. It is not wrong to treat these affections surgically, but it is wrong to refer all ailments, complaints, and suffering in women to the genital organs.

The different operations for the cure of retroflexion are devoid of danger to the patient's life. Certainly the indication for operation is always a relative one; in no case will it be a vital one. But many operations are done upon relative indications, and nobody will blame the surgeon who performs an operation for the radical cure of a hernia. Besides, external circumstances may urge the performance of an operation in preference to other treatment. When patients come from a distance they want to be cured before leaving for home. Plastic operations may be neceesary, and when the patient is once under an anesthetic, a rectification of the displaced uterus may be done at the same *séance*.

An operation, as such, has a great suggestive power on the patient's mind; after its performance the patient has to stay in bed, strict rules as to rest and feeding can easily be carried out. We can withdraw her from the bad influence of her surroundings, and thus bring about better results than by treating the patient at the office, especially when we consider that the so-called conservative treatment with tampons, massage, pessaries, involves a frequent handling of the genitals, with its harmful influence upon the individual.

The surgical treatment of retro-displacements is at present in the same position that the operation for prolapsus uteri was years ago. All sorts of pessaries, rings, and contrivances were brought into competition with the knife, scissors, and needle—but to-day what gynecologist willingly applies a pessary to a prolapsed uterus?

The number and kind of operations devised for the radical cure of retro-displacements of the uterus is great and varied. Those which I have found good and effective are ventrofixation, shortening of the round ligaments and vaginofixation.

I do ventrofixation in fixed retro-displacements and in such cases when for some other purpose the abdomen has been opened. I prefer the abdominal route in order to get a good view of everything. The fixation itself I do by carrying through the uterus two or three threads which go through the parietal peritoneum, muscle, and fascia of the abdominal wall, and are used also as buried sutures to unite the parieties muscle and fascia. The peritoneum is always united with a continuous stitch. In this way mobility is secured. The material for the sutures must be absorbable in cases where pregnancy is possible. A sufficient number of ventrofixations have been done —the time for subsequent observation as to final results has been long enough—many pregnancies and deliveries have been noted, so that the opinion may now safely be expressed that ventrofixation is a useful operation.

When we deal with movable, healthy, retroplaced uteri the operation which answers best for all purposes is shortening of the round ligaments. Difficulty is sometimes experienced in finding the ligaments, in pulling them out sufficiently, and in anchoring them securely. The uterus is held in position, remains movable, no displacement of the pelvic organs takes place, pregnancy is not disturbed, and delivery is not interfered with.

The only competitor with this Alquié-Adams-Alexander operation is vaginofixation, the more so because at present everybody is anxious to do everything in gynecology through the vagina. To Schücking, of Pyrmont, Germany, belongs the credit of having first performed the operation of fixing the retroflexed uterus to the anterior wall of the vagina by means of a specially devised needle which is carried through the cavity and fundus of the uterus and the anterior *cul-de-sac* into the vagina. Injury to the bladder has resulted, so Prof. Zweifel, of Leipzic, advises to first separate the bladder from the uterus and push it out of harm's way.

Mackenrodt and Dührssen, of Berlin, then conceived the very nice idea of fixing the uterus to the vagina by introducing the sutures from the vagina, proceeding otherwise in the same manner as Zweifel. The original Mackenrodt method consisted in fixing the uterus a little above the internal os, without invading the peritoneal cavity. He reported permanently successful cases, but others, including myself, have had relapses in every instance. Dührssen's original method was to get at the fundus uteri and to stitch this to the vagina, carrying the needle and thread through part of the peritoneal cavity without control of the eye. Both operators modified their operations greatly in the course of time, and finally, to secure lasting results, ended in opening the peritoneal cavity, between bladder and uterus in every case, doing what Martin, of Berlin, calls "colpotomy," and Dührssen "vaginal celiotomy," and fastening the fundus to the vagina.

The results, as far as the retroflexion was concerned, were excellent; the uterus was surely in the anterior position and stayed there; but in relation to the health and comfort of the patient, minor objects it may appear, the results proved disastrous. Quite a number of women who had been operated upon in this manner, became pregnant, and quite a number presented new and severe obstacles to delivery; operations such as cesarian section had to be done; a new field for the obstetrician has thus been opened through the restless energy of the gynecologist, in pleasing contrast to the usual course of events.

Mackenrodt was honest enough, in the face of these disasters, to disavow his own operation, but he could not help recommending fixing the uterus to the bladder instead of to the vagina.

Certainly the question of vaginofixation is settled; in cases where the possibility of pregnancy exists, it is absolutely contraindicated, but if we operate in women where pregnancy is out of question, be it for the removal of small tumors through the vagina, or for plastic work, vaginal fixation of a retroflexed uterus is perfectly justified.

In conclusion, I would lay down the following rules:

1. In movable small uteri, do shortening of the round ligaments.
2. In fixed retroflexions, or whenever the abdomen has been opened for some reason, do ventrofixation.
3. Vaginal fixation should be performed only in cases where pregnancy is out of the question.

1018 Sutter street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and
WM. FITCH CHENEY, B.A., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

Curettage as a Method of Induced Abortion.—PUECH presents the following conclusions: (1.) Curettage should have a place among the approved methods of artificial abortion. (2.) Before the fourth month it is efficacious and free from danger. (3.) It should be adopted, particularly whenever rapid evacuation of the uterus is indicated. (4.) It should be adopted whenever economy of blood is especially indicated—in anemia and enfeeblement from any cause. (5.) In intractable vomiting; particularly is it indicated for two reasons already advanced—rapidity in performance and economy in blood.—*Annali de Gynicologia et Obstetrica.*

Treatment of Scrofula.—This should not be directed solely to the enlarged glands, but rather to the diathesis of which they are the result. The best means are found in nature—pure air, exercise, a diet of wholesome food, and perfect hygienic surroundings; these are the fundamental medicines to be used in the treatment of scrofula, without which others are practically valueless. The addition of iodide of iron, to stimulate the glandular system and build up the blood corpuscles, is useful. So says DR. JOHN A. LARRABEE, of Louisville, Ky. The writer does not believe in the theory that scrofula is tuberculosis but looks upon it rather as a degenerated syphilis.—*Pediatrics*, May 1, 1896.

Phenocol Hydrochloride in Whooping Cough.—MARTINEZ VARGAS has employed this remedy in forty-two cases of whooping cough in daily quantities, varying according to the age of the patient and the severity of the disease, from 1⅛ to 31 grains. The sole objection to the remedy is the disagreeable taste, which may be masked by syrups. Its elimination by the urine is rapid and may be demonstrated within twenty minutes after ingestion. It diminished the frequency and intensity of the cough which gradually lost its convulsive character. Improvement was manifest within from six to twelve hours, and was marked within twenty-four hours.—*Journal de Medicine de Paris*, March 29, 1896. [In two cases of whooping cough I have not observed any marked benefit from the use of phenocol. W. A. B.]

Indications for Artificial Abortion.—JAFFÈ, of Hamburg, formulates the following indications for induced abortion: (1.) Intractable vomiting of pregnancy. (2.) Incarceration of the gravid uterus, either retroflexed or hernial.

(3.) Extremely contracted or deformed pelvis when the mother refuses cesarian section after viability. In hospital one may pursue a different course than in private practice—having recourse to symphyseotomy, which affords excellent results for both mother and child. (4.) Pernicious anemia. (5.) Grave chorea. (6.) Progressive mammary hypertrophy. (7.) Pronounced mental disease, with insomnia. (8.) Pulmonary disease (emphysema, tuberculosis), when the life of the mother is in imminent danger if pregnancy continue. (9.) Nephritis in extreme cases. (10.) Cardiac disease, when compensation can not be maintained and the life of the mother is threatened in consequence. —*Journal de Medicine de Paris*, February 9, 1896.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and

GEO. B. SOMERS, M.D., San Francisco, Cal.

Prostatectomy.—ALEXANDER gives the following description of his operation for removal of the prostate: The patient is prepared by giving a cathartic the night before the operation and by emptying the lower bowel by a large enema the following morning. The bladder is washed out immediately before the operation with a solution of nitrate of silver (1:6000). The patient is anesthetized, the bladder emptied by catheter, and then distended with Thiersch's solution, 10 ounces being sufficient in most cases to bring the bladder well above the pubes. The bladder is then exposed by a vertical incision between the recti muscles, and two retraction sutures are introduced through its wall. Between these an opening is made large enough to allow the operator to insert two fingers. The cavity of the bladder and the projecting portions of the prostate are now examined. The suprapubic opening is then covered with gauze and the patient placed in the lithotomy position. A staff is passed into the bladder through the urethra and held by an assistant. The membranous urethra is then opened by a median perineal section, the floor of the urethra being thoroughly cut from just behind the bulb back to the apex of the prostate. This must be done thoroughly. The staff is then withdrawn and the gauze removed from the suprapubic wound. The surgeon now washes and disinfects his hands. Two fingers of the left hand are then passed into the bladder through the suprapubic wound, and by these the prostate is pressed downward into the perineum. With the forefinger of the right hand the surgeon begins the enucleation, which is performed entirely through the perineal opening. The outer sheath of the prostate is broken into by the finger just beneath the mucous membrane of the prostatic urethra, and the entire prostate is shelled out from within its sheath by digital dissection. The mucous membrane of the bladder and prostatic urethra, with the underlying muscular tunic is stripped up, but is not opened. The right and left lobes are first removed, after which, if there is a middle projecting tumor, this can be pressed downward into the perineal wound and enucleated in the same manner. During the enucleation the prostate is to be drawn down into the perineum by forceps. After removal of all prostatic growths, the wound is flushed with a 1:5000 bichloride solution, a perineal tube is inserted into the bladder, and a rubber drainage-tube of moderate size in the bladder above the pubes. The upper part of the suprapubic wound is then closed by sutures. The after-treatment consists of daily washings of the bladder through the suprapubic tube. All urine flows out of the perineal tube. The upper tube is removed on the sixth day and the lower three days later, after which the bladder is washed by catheter through the perineum for a few days. A full sized sound is passed at the end of the second week, and then every five days until the perineal opening closes. The wounds have usually healed in the course of five weeks.—*New York Medical Journal*, February 8, 1895.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

Implantation of a Glass Ball in the Orbit after Enucleation of an Eye.—Dr. L. Webster Fox has devised a new operation for aiding the better adjustment of an artificial eye. He calls it "Implantation of a Glass Ball for Support of an Artificial Eye." The operation is as follows: An incision is made through the conjunctiva and tissues of the orbit in the horizontal direction, a shade less than the diameter of the glass ball to be inserted; for instance, if the glass ball be one centimeter in diameter, the cut would be two millimeters less. The upper lip of conjunctiva is raised and with sharp-pointed curved scissors the conjunctiva and the connective tissue which lies close to it is dissected off in all directions around the incision, making a pouch into which the glass ball will fit. On account of the vascularity of the parts, considerable bleeding follows this dissection, but it is easily controlled by pressure. After the bleeding stops, the glass ball is inserted into the *cul-de-sac* with the injector. The edges of the conjunctiva are brought together by 5 or 6 stitches and the after-dressing is the same as that followed in evisceration cases. This operation will remove much of the objectionable features of wearing an artificial eye. It has been proven in the Mules' operation that the sinister stare, and loss of movement, as well as the accumulation of mucus, is dispensed with. These same objections, the author claims, are overcome by his method.—*Medical Bulletin*, July, 1896.

Fox)

Eucaine as a Local Anesthetic.—Mr. R. Brudenell Carter has tested the anesthetic properties of eucaine in 2 cases, and he was favorably impressed with its effects. Eucaine is a laboratory product, discovered by Dr. Gaetano, which it is said can be produced at moderate cost. This product does not dilate the pupil, and is said to be less toxic than cocaine. It is claimed that the drug has been used successfully in dentistry and laryngology, and it may be used hypodermically without injury.—*Lancet*, July 11, 1896.

Electrolysis in the Treatment of Detached Retina.—In a paper on the treatment of detached retina, Mr. Simeon Snell states that the recent discussion of this subject at the Ophthalmological Society of the United Kingdom, indicated that the treatment of detached retina was still regarded as unsatisfactory. Occasionally good results were obtained by the usual methods. A patient upon whom he had operated many years ago by sclerotic puncture, was following his occupation dependent upon that eye. The author had used Terson's method of treatment by electrolysis in 3 cases. The first operation was a hopeless case, but the detachment was reduced; the second, an extensive detachment, was materially improved in lessening the detachment, increasing the size of the field, and considerably improving vision; and the third resulted in a practical disappearance of the detachment, a much enlarged field, and also improved vision from counting of fingers indistinctly to $\frac{15}{100}$. It was too early to state the final result. Mr. Snell thought the method was worthy of trial.—*British Medical Journal*, July 11, 1896.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

Gangrenous Cystitis, with Exfoliation of the Bladder Wall.—DR. J. COLLINS WARREN reports the following case of this rare affection: Mrs. X——, 38 years of age, and of good general health, was married in 1887, but had no children. A condition of vaginismus and sensitiveness in the neighborhood of the meatus rendered coitus impossible. For the relief from this condition Dr. W. L. Richardson dilated the vagina on January 31, 1893. During convalescence from this operation it was noticed that the urine contained a certain amount of sediment, and that the symptoms of vesical irritation were marked. The first sign of any irritation of the bladder was noticed by the patient in August, 1892, but had not been of sufficient severity to give rise to any complaint. After leaving St. Margaret's Hospital on February 15th, the symptoms of cystitis became more marked, and finally so severe as to oblige her to return to the hospital on February 28th. An examination of the urine was made February 22d, with the following result: Color, normal; reaction, very alkaline; specific gravity, 1.018; urophein, normal; urea, slightly diminished; chlorides, normal; indoxyl, slightly increased; uric acid, increased; phosphates, increased; albumin, good trace; sugar, absent; amount and character of sediment, much. Great quantities of crystalline. Triple phosphates. Much pus, bladder epithelium and blood. March 5th the patient complained greatly of an obstruction of the flow of urine, and on examination of the meatus a foreign substance was observed by Dr. Richardson protruding from the urethra. On being called in consultation by Dr. Richardson, I found, on examination, what was apparently a slough, about the size of two joints of the little finger, protruding from the meatus. It was decided to etherize the patient, and to make a thorough exploration of the bladder. The patient was then placed in the lithotomy position, and traction was made with the dressing forceps upon the protruding mass, which gradually emerged from the urethra, which was greatly distended by the operation. A fresh hold was then taken with the forceps, and rolls of sloughing tissue continued to be pulled out, until a membrane the size of a small pocket handerchief had been extracted from the bladder, in one continuous mass. A large quantity of pus escaped as the last corner of the slough was withdrawn from the urethra; the bladder was then washed out with an evacuator and carefully examined for stone and sloughs. Bimanual examination of the interior of the pelvis showed the uterus to be in good condition, but somewhat retroflected by an indurated mass, which occupied the region of the fundus of the bladder. No disease of the uterine appendages could be detected. No constitutional disturbance followed this operation. There was at first complete incontinence of urine. The bladder was daily washed out with a weak solution of permanganate of potash, and later boracic acid. No more slough was evacuated from the bladder. The patient was at times able to retain small quantities of urine, but suffered from incontinence, chiefly at night. She left St. Margaret's in a greatly improved condition on May 2d.—*Boston Medical and Surgical Journal*, June 25, 1896.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Subnitrate of Bismuth.—CARLES controverts the theory that subnitrate of bismuth has a merely mechanical action. Gayon and others have proved that it has a powerful bactericidal action, and the author found that an easily decomposable solution containing subnitrate of bismuth keeps indefinitely. Gosselin and Heret have made it useful for cleansing putrid wounds. To understand its action when given internally, one must remember that the purest specimen tends to split up into bismuth oxide and nitric acid when in contact with water. (1) Action on the stomach. The oxide, which is in excess of the acid, acts first as a detergent to the gastric mucous membrane and precipitates the mucus, and, secondly, exercises its germicidal power. The nitric acid has a tonic astringent and also antiseptic power. (2) In the intestine it meets with sulphuretted hydrogen gas, which converts it into black sulphide, thus liberating a further portion of its acid, which is again partially transformed into nitrous vapors, the antiseptic action of which has been proved by Girard and Pabst. For these reactions to take place it is necessary: (1) That the subnitrate should be pure and not mixed with carbonate. (2) That it should be as finely powdered as possible. This latter point is easily proved in the laboratory.—*British Medical Journal*, April 4, 1896.

Salol.—MANCEAU says that the powerful action of salol against microbes is due to its splitting up, in any alkaline medium, into salicylic and sulpho-carbolic acids. Its internal use requires caution in fevers, in acute or chronic diseases of the kidney, and arthritic cases with cuticular congestions. By utilizing its property of melting at 42 C, it has been combined with various other microbicides, and a number of new antiseptics formed, of which the type is liquid iodoformed salol; this compound increases in bulk as it cools, and is useful in filling up irregular cavities, fistulous tracts, etc. In suppuration of the glands the knife may be avoided by an injection of this substance, followed by aspiration of the pus, and again by another injection; it has a powerful therapeutic action in local tuberculosis, though not in those surgical forms which tend to generalization. It forms a really antiseptic varnish when applied to wounds analogous to traumaticin.—*British Medical Journal*, April 18, 1896.

The Clinical Value of Diuretin.—LOUIS VINTRAS has arrived at the following conclusions regarding the class of cases to which this remedy is best adapted. When the kidney affection is primary and well established—that is, when the deep parts of the organ are affected, as in the parenchymatous form of acute nephritis—and when there is much albumin present, diuretin is of little or no value, while in these cases in which the kidney trouble is secondary to morbid lesions in other organs and the epitheliel layer of the tubes is the seat of the disease, this diuretic is a valuable therapeutic agent.—*Lancet*, April 25, 1896.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

Appendicitis in Families.—At a meeting of the "Societe Medicale des Hôpitaux," M. FAISANS directed attention to the occurrence of appendicitis in the members of the same family. He agrees with Dieulafoy, in attributing this occurrence to an hereditary appendicular lithiasis, just the same as the hereditary transmission of hepatic or renal lithiasis. In a large number of cases of the "family" forms of appendicitis, he noted the tendency of the affection to recur and to terminate in not a few instances in perforation, septic peritonitis, and death. The treatment in these cases is largely prophylactic, viz: ablation of the appendix. In the discussion, M. TALAMON said he had frequently observed family forms of appendicitis. He disagreed with the essayist regarding the etiology. He denied an arthritic diathesis favoring the development of a true appendicular lithiasis like biliary and renal lithiasis. He maintained that the occurrence of appendicitis in families was attributable to some anomaly in the development of the appendix. Thus, an abnormally patulous appendix. He sustained his views by citing other vices of conformation occurring in families, the victims of appendicitis. M. **Hayem** held the opinion that individuals who suffered from parenchymatous gastritis were subject to appendicitis, and as the former affection was hereditary, it might explain the family forms of appendicitis.—*Semaine Medicale*, March 4, 1896.

Polyneuritis Mercurialis.—Since **Leyden** first published his case of this affection occurring in a syphilitic man, to whom inunctions of mercury were given, several other observers have reported similar cases. Although experiments were attempted on animals to produce an analogous condition, the results have heretofore been negative. **Heller** has succeeded in producing experimental mercurial polyneuritis in rabbits. After injections of mercury, the following phenomena was observed: Paralyses and contractions of the posterior extremities, trophic disturbances, loss of hair, decubitus, eczema. A microscopical examination of the nerves demonstrated marked tissue changes. *Therapeutische Monatshefte*, May, 1896.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. Hoisholt, M.D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Chloroform Anesthesia Produced During Sleep.—The experiments of **Dolbean**, of administering chloroform vapors to persons physiologically asleep and affected with somatic diseases, have been repeated by **Dr. R. Gurriere** upon persons who had passed through some mental disease, but were cured so that their discharge could take place a short time after the date of the experiments, and who were perfectly healthy physically. The *technique* was to begin the administration of the chloroform very cautiously. A handkerchief drenched with chloroform was first kept about 3 inches from the nostrils, then gradually approached. If reflex movements or wiping off the nose with the hand followed, a short interruption was made. The patients were not informed what was going to be done with them, all possible precautions were taken not to make them suspect anything. The result of the experiments was positive in 4 cases out of 9 examined ones. In one of the cases which gave a negative result the experiment was repeated and was a success after one-twelfth grain of morphine had been given to the patient without his knowledge, some hours before bedtime. The narcosis was not pushed to the degree required for surgical operations, but only to the extent necessary to leave no doubt as to the presence of anesthesia. The limbs were perfectly relaxed; flapping the body and making noise did not awake them; only by forcibly shaking did they finally become conscious. The next morning, however, they did not remember that they awoke during the night, and had not the least idea that chloroform had been administered to them. The result of the experiments is important from a medico-legal point of view, as it proves the possibility of bringing about an anesthesia in a person during sleep, for criminal purposes.—*Rivista sperim. di freniatzia.—Journal Nervous and Mental Disease.*

FORMULÆ.

By H. E. Sanderson, Ph.B., M.D., Assistant Physician State Asylum for Insane, Stockton, Cal.

Ulcerative Sore Throat.—Brodnax strongly recommends:

Chloral hydrate	20 grains
Water	3 ounces
Syrup	1 ounce

S.—Teaspoonful every hour or two for pain and to induce sleep.—*Medical Council.*

Urticaria.—An excellent prescription for nettle-rash is:

Sugar of lead	15 grains
Dilut. hydrocyanic acid	4 drachms
Alcohol	7½ drachms

Water, to make 2 ounces.

—*Dublin Journal of Medical Science.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., San Francisco, Cal.

Mortality for July, 1896.—The deaths registered in 45 town districts of the State, during the month of July, in a population of 656,514, correspond to an annual rate of 16.56 a thousand, the total mortality having been 911. 63 deaths were due to zymotic diseases, giving an annual rate of 10.92 a thousand. Of these, 4 were due to diphtheria, 17 to cholera infantum, 14 to typhoid fever, 7 to diarrhea and dysentery, 6 to cerebro-spinal fever, 5 to whooping cough, 4 to croup, 2 to intermittent and remittent fevers, 1 to scarlet fever, 0 to measles, and 0 to small-pox. 238 deaths resulted from diseases of the respiratory organs, giving an annual rate of 4.34 a thousand. Of these, 131 were due to consumption, 62 to pneumonia, 28 to bronchitis, and 17 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.28 and 1.12, respectively. 88 deaths resulted from diseases of the heart, 3 from alcoholism, 1 from erysipelas, 42 from cancer, and 366 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 526,450, was 16.92. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Alameda.

METEOROLOGY.

Summary for July, 1896—*Temperature.*—The normal temperature of the State for July is 73.1°; the average for July, 1896, was 76.6°, a departure from the normal of +3.5°. The highest monthly mean was 104.9°, at Volcano Springs; the lowest, 55.4°, at Point Reyes. The maximum temperature was 124°, at Volcano Springs, on the 12th. The minimum, 27°, at Quincy, on the 28th. The absolute range for the State was 97°. The greatest monthly range was 70°, at Turlock; the least, 19°, at Point Lobos.

Rainfall.—The normal precipitation for the State for July is 0.05 inches; the average for July, 1896, was 0.09 inches, a departure from the normal of +0.04 inches. The greatest monthly precipitation was 2.57 inches, at Isabella; the least, nothing, at numerous places throughout the State.

Wind.—The prevailing direction of wind was W.N.W.

Unusual Features.—The unusual meteorological phenomenon of the month was the very hot wave of the forepart of the month, when numerous horses were killed in the harvest fields, and several persons died, not from sunstroke, but from drinking too largely of ice water when they were almost in a collapsed condition from the heat. This was as severe a hot wave as the one of June and July, 1869. Numerous cloudbursts occurred during the hotter part of the month, viz., on the 9th, from one end of the State to the other in the high mountain regions.—James A. Barwick, Director California Weather Service.

California—Tabular Statement for July, 1896.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	80.0	104	58	----	----	----	----	0.14	----	----	----	----	S.W.	Southern Pacific Company.
Berkeley........ "	65.0	81	52	73	56	17	0	0.00	----	15	8	8	W.	Obs. University of California.
Colfax........... "	83.0	104	63	----	----	----	0	0.00	----	----	----	----	W.	Southern Pacific Company.
Coronado....... "	71.0	85	60	75	66	9	1	T	79	19	7	5	N.W.	Hotel del Coronado.
Eureka.......... "	57.0	70	47	62	52	10	0	0.00	88	2	24	5	N.W.	Weather Bureau Dept. Agr.
Fresno.......... "	85.0	111	56	101	69	32	2	0.07	38	26	4	1	N.W.	" " "
Keeler........... "	71.0	109	65	----	----	----	----	0.25	----	----	----	----	W.	" " "
Los Angeles.... "	86.0	92	54	82	60	22	1	0.02	79	9	19	3	W.	" " "
Monterey....... "	62.0	78	52	----	----	----	0	0.00	----	----	----	----	N.W.	Southern Pacific Company.
Napa............ "	69.0	98	47	84	54	30	1	T	71	20	10	1	S.W.	Station Napa Insane Asylum.
Oakland........ "	64.0	84	51	73	55	18	0	0.00	79	16	14	1	N.W.	Chabot Observatory.
Paso Robles.... "	79.0	106	57	92	66	26	1	T	----	20	10	1	S.W.	Agr. Experimental Station.
Red Bluff....... "	85.0	109	57	99	71	28	0	0.00	35	28	3	0	S.E.	Weather Bureau Dept. Agr.
Sacramento. ... "	76.0	104	51	91	62	29	2	T	58	27	4	0	S.W.	" " "
San Bernardino "	77.0	103	49	94	59	35	0	0.00	----	22	7	2	W.	A. K. Johnson, M. D
San Diego....... "	59.0	72	50	65	54	11	1	0.04	79	18	7	6	W.	Weather Bureau Dept. Agr.
San Francisco.. "	69.0	80	56	74	63	11	3	T	85	19	7	5	N.W.	" " "
Santa Barbara.. "	67.0	80	57	74	60	14	1	0.40	76	20	7	4	W.	Hugh D. Vail.
Santa Cruz...... "	64.0	89	42	75	53	22	1	0.05	----	18	11	2	W.	W. R. Springer.
Yuma..........A. T.	91.0	110	68	105	78	27	2	0.41	45	25	3	3	S.W.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

Occidental Medical Times.

Communications are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

Sacramento: September, 1896.

CONTRACT LODGE PRACTICE.

The question of contract lodge practice by reputable physicians, whereby medical and surgical services and medicines are furnished at a fixed and purely nominal sum *per annum* to members of various "benevolent" societies, is fast becoming a burning one. Of late years the magnitude and extent of this evil has pressed more hardly on the profession. At the present time, with the numerous free dispensaries and clinics, and the various "benevolent societies," some of which even support hospitals, the life of the general practitioner is, yearly, becoming harder. Add to this the number of new graduates furnished by the various medical colleges, a number out of all proportion to the demands of the public, and it will be seen that the "struggle for existence" is becoming exceedingly severe. If the result were "the survival of the fittest," then conditions would be less deplorable, but, unfortunately, the honorable and high-minded physician, he who, by education and training, will not stoop to disreputable practices, is at a grave disadvantage in the daily struggle for bread. If we read the signs of the times aright, there is now under way a widespread movement against the various organizations which, under the cloak of charity or benevolence, or openly in the spirit of commercialism, are now flourishing so rankly.

Some two years ago, in San Francisco, there were ominous mutterings in the profession, when some new "lodge" was about to be formed. The mutterings became louder until their volume was sufficient to compel some prominent members of the profession to disassociate themselves from the scheme. More recently, in Southern California, an active agitation has been in progress, with the object of placing this class of business where it properly belongs, amongst the ignorant and disreputable of our profession. Early in the present year, the Orange County Medical Society passed a resolution condemning contract practice by any of its members. At the meeting of the State Society, held in Los Angeles, last May, a strongly worded resolution, bearing on this subject, in relation to membership in the Society, was introduced by **Dr. F. D. Bullard**. In reporting upon this resolution, the Executive Committee said: "Your committee begs leave to report that it is entirely in consonance with its purposes. It therefore recommends its adoption by the State and County Societies, but, inasmuch as any action cannot be binding on the members who are now under contract, it recommends that the resolution be brought up for consideration at the next meeting, and in the meantime it urges upon all members to use their influence against this custom of cheapening the value of medical services." The latest addition to the ranks of the protestants is the Santa Clara County Medical Society, which, on May 22d, adopted a series of resolutions, to remain in force for the term of three years. The resolutions, which are as follows, have been signed by nine-tenths of the legally qualified practitioners of the county:

"*Whereas*, Rendering professional services at a stipulated fee *per capita per annum*, is derogatory to the dignity of the profession, we, the undersigned, physicians and surgeons of Santa Clara county, California, enter into the following agreement:

"*First*—We mutually, jointly and individually, pledge our word of honor, not to enter into any contract or agreement, or renew any existing contract or agreement, either written, verbal, or implied, to render medical or surgical services to any lodge, society, association, or organization.

"*Second*—We will not render medical or surgical services to the members of the above mentioned bodies for less compensation than we charge the general public for similar services.

"*Third*—This contract shall not be construed to affect existing contracts between physicians and surgeons and the above mentioned bodies."

Elsewhere in this issue **Dr. E. J. Boyes**, in a timely communication, mentions the attention which this subject is now receiving abroad, and refers to the approval with which the action in Los Angeles has been greeted. Results are only to be achieved by organization and concentration of effort; and while most briefly mentioning the present status of affairs, we shall again return to it in an effort to crystalize professional opinion on this monstrous evil.

Meanwhile, it is proper to direct attention to what has long since been accomplished in a quiet way in this direction, in one city. The Sacramento Society for Medical Improvement has been a pioneer on this coast in many professional movements. Many years ago the harmfulness of contract practice was recognized by the Society, and resolutions were adopted condemning it. To-day these resolutions are still in effect, Article III of the Society's By-laws reading as follows:

"No member of this Society shall make or enter into any contract or agreement with any society, association, corporation, or individual, whereby medical or surgical services are rendered at a rate less than that named in the Fee Bill. This by-law shall not be construed as applying to hospitals, whether public, private, or corporate."

As far as the Society is concerned, these resolutions have been kept inviolable, and as it includes amongst its members almost the entire strength of the profession in the county, lodge practice is here conducted exclusively by sectarian physicians. Thus, while giving force to the movement now being inaugurated, it is proper to recognize the beginning made so long ago, and to carefully bear in mind the object lesson which Sacramento has for so many years exhibited to the profession.

NOTES.

Spurious Glycozone.

In the United States Circuit Court of the Eastern Division for the Northern District of Ohio, the Drevet Manufacturing Co , of New York, have recently obtained an injunction against one A. P. Beach, who was engaged in the manufacture of an article which he had called "Glycozone," and which apparently had been used for illicit purposes. The injunction also provides that he shall not manufacture "Peroxide of Hydrogen" (Marchand's Medicinal).

The Laryngoscope.

This is the title of a new medical journal devoted to diseases of the nose, throat, and ear, and edited by Dr. Frank M. Rumbold, of St. Louis, Mo., assisted by a corps of associate editors in this country and abroad. The initial number of this new candidate for professional favor is very neat in its appearance and is profusely illustrated. It contains several original articles and a number of selections from current literature within its particular field. The subscription price is $2, and the editor believes that, at this figure, it will come within the reach of the general practitioner and specialist alike, especially as it is the only journal of its kind published in this country.

Wholesale Substitution.

According to a recent issue of the *Pharmaceutical Era*, Fairchild Bros. & Foster have adopted vigorous methods of dealing with druggists who have been substituting other preparations for their goods when specified in prescriptions. The firm states that it does not claim any exclusive right to make essence of pepsin, but, which is perfectly true, that it has the exclusive right to make *Fairchild's* essence of pepsin, and that when a physician prescribes this article it is expected it shall be furnished by the druggist. The firm proposes to systematically investigate in the various cities where persistent substitution has been practised and to prosecute the offenders. We believe that the practice of substitution is increasing, and that it is, more than ever, necessary for physicians to use every precaution regarding their methods of prescribing as well as the filling of their prescriptions. While there are many honorable and competent pharmacists who will not substitute, under any circumstances, there is still a larger number that do not hesitate to prostitute their profession in this manner. The development of the numerous "cut-rate" pharmacies is not calculated to increase the confidence of the medical profession in the average drug store. If this continues one of two results is inevitable—either the very general furnishing of medicine by physicians, or else the organization of one or more exclusively prescription pharmacies in all cities capable of supporting them.

Poisoning with Cocculus Indicus.

An unfortunate accident occurred at the San Francisco City and County Hospital, August 21, 1896, which resulted in two deaths. Orders had been given to the ward nurse to administer doses of black draught to two patients, who were about to undergo operations for cataract. The nurse desiring to go down town entrusted the duty to a patient who had been in the habit of assisting about the ward. The latter, though but 36 years old, was afflicted with atrophy of the optic nerve, and when he came to administer the medicine mistook the bottle and gave to each patient two ounces of the tincture of cocculus indicus, which was used for destroying vermin. Both patients died, the one in 2 hours and the other in 36 hours. Both were elderly men, the one dying first having been troubled with some heart lesion. The principal toxic symptoms noted were cyanosis, interruptions of respiration, epileptiform convulsions, with frothing at the mouth and gradually increasing coma. The treatment consisted in the use of the stomach pump, stimulants, and artificial respiration. The heart in the second case did not seem to be much affected by the drug, the chief symptoms being respiratory. The verdict of the Coroner's jury was "that the said poison in both cases was administered by Mr. Mallaber without criminal intent; and we further find that the nurse, Richard Sherlock, is guilty of criminal carelessness and negligence in leaving the ward before being relieved by a professional nurse, or some one equally competent; and we further find that certain rules of the City and County Hospital are not properly enforced." An excellent device for use in public institutions on bottles containing poisons, is a narrow strip of barbed tin placed about the body of the bottle, so that when it is grasped by the hand the sharp points may remind the holder to beware of the contents.

Committees of the State Medical Society.

The following are the Standing Committees of the Medical Society of the State of California, for 1896–97:

Clinical Medicine.—John Fife, Red Bluff, Chairman; J. H. Utley, Los Angeles; Robert F. Rooney, Auburn; J. S. Eastman, East Berkeley; George L. Cole, Los Angeles.

Surgery and Surgical Anatomy.—T. W. Huntington, Sacramento, Chairman; W. W. Hitchcock, Los Angeles; J. Henry Barbat, San Francisco; George B. Somers, San Francisco; George W. Westlake, Red Bluff.

Pathology.—Charles M. Fisher, Oakland, Chairman; Albert Abrams, San Francisco; A. J. Sanderson, St. Helena; W. S. Taylor, Livermore; W. R. Cluness, Jr., San Francisco.

Diseases of the Mind and Nervous System.—A. W. Hoisholt, Stockton, Chairman; John W. Robertson, Livermore; H. N. Rucker, Oakland; F. D. Bullard, Los Angeles; J. Simon, San Francisco.

Medical and Surgical Diseases of Children.—William A. Edwards, San Diego, Chairman; W. B. Lewitt, San Francisco; L. M. F. Wanzer, San Francisco; Wm. J. G. Dawson, St. Helena; George P. Reynolds, Alameda.

State Medicine and Hygiene and Adulteration of Food and Drugs.—Thomas D. Wood, Palo Alto, Chairman; Frank Howard Payne, Berkeley; M. M. Chipman, San Diego; J. H. Davisson, Los Angeles; W. F. Wiard, Sacramento.

Gynecology.—Walter Lindley, Los Angeles, Chairman; E. G. Frisbie, San Francisco; Luke Robinson, San Francisco; C. E. Cooper, San Francisco; A. M. Taylor, Oakland.

Obstetrics.—D. B. Van Slyck, Pasadena, Chairman; H. M. Pond, Alameda; Anabel McG. Stuart, Santa Rosa; Edna R. Field, San Francisco; A. Fine, Oakland.

Microscopy and Histology.—John C. Spencer, San Francisco, Chairman; C. G. Levison, San Francisco; W. B. Stephens, Alameda; J. Q. Wrenn, Placerville; J. U. Hall, Jr., San José.

Indigenous Botany, Materia Medica, Pharmacy and Medical Chemistry.—W. P. Gibbons, Alameda, Chairman; G. F. Hanson, San Francisco; S. B. P. Knox, Santa Barbara; C. L. Gregory, Yreka; J. S. Sargent, Santa Rosa.

Publication.—A. P. Woodward, San Francisco, Chairman; W. W. Kerr, San Francisco; J. M. Williamson, San Francisco; M. H. Woolsey, San Francisco; Albert H. Taylor, San Francisco.

Medical Topography, Meteorology, Endemics, and Epidemics.—C. Max Richter, San Francisco, Chairman; C. W. Nutting, Etna Mills; H. H. Davis, Sonoma; B. M. Gill, Dunsmuir; C. W. Evans, Modesto.

Necrology.—C. C. Wadsworth, San Francisco, Chairman; L. E. Felton, Hanford; C. W. Jones, Grass Valley; C. D. Ball, Santa Ana; W. D. Anderson, Vallejo.

Dermatology and Genito-Urinary Diseases.—**D. Granville MacGowan. Los Angeles, Chairman; A. P. Woodward, San Francisco; M. Krotoszyner, San Francisco; L. Bazet, San Francisco; R. L. Rigdon, San Francisco.**

Prize Essay.—**F. Dudley Tait, San Francisco, Chairman; B. F. Clark, San Francisco; George H. Powers, San Francisco; Washington Dodge, San Francisco; Stanley Stillman, San Francisco.**

Ophthalmology.—A. H. Voorhies, San Francisco, Chairman; Archibald L. Macleish, Los Angeles; G. J. Overend, San Francisco; M. H. Woolsey, San Francisco; Rosamond L. Cox, San Francisco.

Laryngology, Rhinology, and Otology.—J. Dennis Arnold, San Francisco, Chairman; W. D. Babcock, Los Angeles; George W. Merritt, San Francisco; S. Trask, San Francisco; E. S. Clark, San Francisco.

Medical Jurisprudence.—A. M. Gardner, Napa, Chairman; H. G. Brainerd, Los Angeles; W. H. Mays, San Francisco; J. R. Curnow, San José.

Medical Education and Medical Legislation.—Wm. Ellery Briggs, Sacramento, Chairman; R. H. Plummer, San Francisco; G. L. Simmons, Sacramento; C. N. Ellinwood, San Francisco; George F. Shiels, San Francisco.

Executive Committee.—W. Le Moyne Wills, Los Angeles, Chairman; W. R. Cluness, San Francisco; W. S. Thorne, San Francisco.

Committee of Arrangements.—W. F. Cheney, San Francisco, Chairman; F. B. Carpenter, San Francisco; W. E. Hopkins, San Francisco; R. L. Rigdon, San Francisco; Stanley Stillman, San Francisco.

Special Committee on Revision of By-laws.—W. W. Kerr, San Francisco, Chairman; C. C. Wadsworth, San Francisco; H. M. Sherman, San Francisco; W. B. Lewitt, San Francisco; W. Fitch Cheney, San Francisco.

Special Committee on Increase of Membership in the Society.—Jas. H. Parkinson, Sacramento, Chairman; R. H. Plummer, San Francisco; George W. Davis, San Francisco.

SPECIAL ARTICLES.

THE MEDICAL EXAMINATION IN THE TRIALS OF THE TWO RUSSIANS—IVAN KOVALEV AND SIMON RATEN.

Ivan Kovalev, an escape from the Siberian prison, on the Island of Saghalian, who, with several others had been picked up in a small boat off the coast of Japan by a steamer, and brought to San Francisco in 1893, was charged with having murdered an aged couple in Sacramento in the latter part of that year. The police had been baffled in the attempt to trace the perpetrator of this crime for over two years, when a watch and articles of clothing known to have belonged to the murdered man were found in the San Francisco County Jail, and were traced to Kovalev, who a short time previous had been imprisoned there. Arrested and brought to Sacramento he was indicted for the murder, and his trial in the Superior Court was going on when his lawyers claimed that they had been unable to communicate with him about his defense, and that he acted in such a manner as to make them think he was insane. The Court then summoned seven physicians, two of whom were asylum physicians, who were asked to examine the accused, and give an opinion as to his sanity.

When the prisoner was seen in the forenoon he was sitting motionless, with his hands resting on his knees, his head evenly poised, gazing apparently into vacancy, his mouth wide open. He claimed to be unable to speak English, and all the conversation with him had to be made through an interpreter. No family or personal history was obtainable. It was claimed that he had been banished to Siberia for a political offense; afterwards it appeared, however, that he was an ordinary criminal. When asked to give his age and where he was born, he gave correct answers through the interpreter. When asked to shake hands he replied, "Why should I shake hands with that gentleman, I do not know him." On the day before the examination he was seen by two physicians who thought he presented symptoms of catalepsy. His right arm and leg were, therefore, placed in an awkward position, and they remained so. While the right extremities were in this position he was asked to shake hands with his left hand, which he did, after which the hand dropped to his side. As the left hand became pendant, the right leg dropped to the floor, but the right arm remained in the same position as before, and stayed so for five minutes, when it dropped. He was asked why he kept his right arm and right leg so long in one position, and in reply said he was forced to, but answered in the negative when asked if he heard voices telling him to do so.

He appeared to be free from aural and visual hallucinations, as well as from persecutory ideas. He said he had been well treated in jail; that he had not found poison in the food, and had not been followed or persecuted by anybody. When asked to write something in Russian there was quite a change in the patient's demeanor. He became attentive, held the pencil with a firm hand and made quick movements with the fingers in writing. The handwriting did not show any tremor, and the interpreter said that the language was coherent, and a direct answer to questions. At the end of the examination in the forenoon the patient arose from the chair and walked with a firm step back to the jail. Two of the examining physicians had an opportunity to observe the patient eating dinner, without being seen by him. He ate his food with a relish, and appeared to enjoy a hearty appetite. The movements of his hands and arms were quick, likewise those of his jaws in chewing; he appeared to be in a hurry.

While the physicians were in the jail yard, a Russian there explained that Kovalev had played cards on the afternoon of the day before for nearly an hour, and had taken great interest in the game. While they were playing cards Kovalev asked his countryman, in

Russian, why he did not help him to escape. The latter said he had no friends in Sacramento and could not help him, even if he wished to do so. Kovalev insisted that he could, and asked him to pick a certain lock. The Russian asked Kovalev why he did not make his escape through a certain window in the jail yard; he answered that it would be foolish to attempt a thing of that kind, as he was being watched by everybody. In the afternoon Kovalev was again examined. His behavior was the same as in the morning. While he was sitting in a chair, with fixed gaze, the pupils of the eye were observed to dilate and contract at intervals. The mucous membranes were neither congested nor anemic. The temperature in the rectum was found to be 98.5°, pulse about 90. Physical examination of the chest revealed nothing abnormal.

At the end of the examination the committee of physicians gave the unanimous opinion that Kovalev was sane. His trial was then continued, and the jury rendered the verdict of murder in the first degree. He received the death sentence, and was executed March 2, 1896.

Simon Raten, a native of the town of Skookan-Scavolitz, in the Amoor District of Siberia, 400 or 500 miles from the Pacific coast; was arrested at the Rutter ranch, located near Florin, in Sacramento county, Cal., on the 7th of March, 1896, charged with the murder of two Japanese, which had occurred near Galt four days previously. When arrested Raten was employed on a farm not very far from the spot where the murders were committed. When the Japanese were found near the railroad track, where they had been camping, one was dead, the other mortally wounded. The latter died on the following day at the Sacramento County Hospital. One of the dead man's pockets was found turned inside out, the other had apparently not been touched, and one contained a small amount of money in a purse. A bundle found near the ashes of the camp-fire had the appearance of having been hurriedly opened; it was afterwards testified to by the Deputy County Clerk, who happened to be on his ranch near Florin on the afternoon of the 4th of March, that he saw Raten coming from the direction of the railroad track, and passing his barn. Raten was talking to himself and laughing A short time afterwards Raten returned, crossing the place, and was still talking to himself and laughing.

On this day, the day after the murder, he applied for and obtained work at a farm not far away. His employer found him to be a skillful mechanic, and observed nothing about him that made him think him insane. When, on the day before Raten was arrested, his employer talked to him about the murder of two Japanese, an account of which he had that evening, for the first time, read in the newspapers. Raten tried to make him think it was on the 3d, and not on the 4th, that he commenced work at the ranch. When arrested, a watch was found on his person which was identified as having belonged to one of the murdered Japanese. At the preliminary examination, when the Court informed him that counsel had been appointed who would defend him, Raten said he wanted lawyers from Chicago, but had no money. The Court explained that he did not need any money, that counsel would not cost him anything, but that they would have to be selected from among the local profession. Raten then arose and began a rambling statement about the railroad company, that he could not go on with the trial until he got his money. What he wanted was his money; he did not care whether he was to die or not. "You can fix up a block and tackle and hang me right here if you want to." His trial for the murder of the Japanese, whom he had killed outright, was begun in the Superior Court of Sacramento county on April 14th.

On the morning of the second day of the trial Judge Hinkson summoned a special jury to determine the question of the prisoner's sanity. Among the witnesses subpenaed were Drs. Huntington, Simmons, Hart, and Hoisholt, who, on two occasions, made a careful examination of Raten. The following is the history elicited by them, to which has been added the testimony of witnesses bearing upon the same and brought forward during the trial: According to the statement of the prisoner, his father had been an inmate of a Siberian hospital ("similar to what they call an asylum in this country" he said) for two years or so. He knew nothing about his mother, as she died when he was 3 years old. He had two brothers, one of whom died when 2 years old; the second died, when nearly grown, of consumption; the third is living and has a family. His only sister died of some lung trouble. He learned the trade of locksmith in Siberia, and after working as mechanic on steamers, plying between Vladivostock and Japan and China for some years, he came to the United States about 1871. He worked for awhile in New York, and after some years came to California, and obtained work in the railroad shops in Sacramento, in 1881, where he was considered a very good all-around mechanic.

While working here he was well behaved, drank occasionally, but not to excess. According to the statement of a friend of Raten, two of his fellow-workers became jealous of him during the spring of 1882, and tried to get him out of the shops by provoking a quarrel between him and a certain Swede, who on one occasion gave him a severe beating, and was accused by Raten of having stolen some money from him. Raten complained at the police office, and was told to "go and fight for it." He found his enemy at a hotel, and a fight followed, and it is said that during the tussel Raten's pistol went off and the ball struck a bystander in a finger. Some person in the crowd who had witnessed the fight got hold of Raten and brought a rope as if to hang him. He managed to get away from them and ran into an alley pursued by the crowd. Here a certain man (ex-Sheriff Lansing) tried to stop him, when Raten turned and shot Lansing, who died on the following day from the wound.

Raten was captured, and in the trial which followed was convicted of murder in the first degree, and was sentenced to be hung. It was afterwards testified to by a witness, who went with Raten's attorney to Folsom, about three or four days before the time set for the hanging of Raten, for the purpose of getting the prisoner to sign an application for a writ of error, that Raten refused to sign it, and went on at a great rate about some money which he said his attorney had obtained from the railroad company. They explained to Raten again and again that he would be hanged in a day or two if he did not sign the paper, but the prisoner positively refused to sign, and went on talking about his money. Subsequently a commutation of his sentence to imprisonment for life was obtained from Governor Stoneman. In August, 1887, while at Folsom, Raten was committed to the Insane Asylum at Stockton, where his case was considered one of acute mania, with suicidal disposition. On December 2d he was pronounced well mentally, and returned to the prison. Warden Aull who knew Raten at Folsom from December, 1887, until he left the prison in February, 1895, found him an intelligent workman, but he was not able to get much work out of Raten unless the latter was placed by himself, as he could not get along with the other prisoners. He was punished at one time because he became unruly and refused to work. He had peculiarities, but the Warden thought Raten knew when he did wrong, though he had no regard whatever for the law. He did not consider that Raten while at the prison was any more insane than other criminals of his class. February 25, 1895, Raten was discharged from the Folsom Prison, his life sentence having been commuted by Governor Markham to 10 years, on the basis that the killing of Lansing was a case of manslaughter.

After his discharge Raten called at the Sheriff's office in Sacramento and demanded his money; he was told there was nothing for him, and, as he persisted, he was made to leave the premises. The prisoner, according to his own statement and that of a friend, decided then to go to the city of Washington to interview the President. He walked part of the way, and when he had an opportunity stole rides on freight trains until he reached Arizona. Here he worked in a copper shop of the railroad company for some months until he had accumulated enough money to pay his way back to California. According to the statement of a Deputy Sheriff, Raten had told the latter that he left Tucson because they had found out who he was, and commenced to talk about him behind his back, and fearing he would be injured he left. From Tucson he managed to beat his way on freight trains through El Paso as far as Pittsburg, Pa., where he worked a short time. He went from there to Washington, called at the White House, asking for an interview with the President, or his Secretary, hoping through them to get his money back. or, according to the statement of the Deputy Sheriff, to get a letter from the President which would make him safe from his persecutors. He was told the President and Secretary were away on a vacation, and would not be back for two weeks. He did not, however, remain in Washington, but went immediately to New York, and with his money bought a ticket to San Francisco, via Panama.

After his return to California he visited Sacramento, and called on Governor Budd concerning his money, but did not succeed in getting an interview. A few weeks before the murder was committed he applied for citizens' papers at the County Clerk's office, and was told that he could not be admitted to citizenship until he had obtained his first papers, which were issued to him.

The physicians called upon to examine Raten, found him to be a person of average size, slender, but muscularly well developed. His face was of a marked Mongolian type, with a heavy and elongated lower jaw, projecting cheek bones, facial angle, rather acute, small piercing eyes rather far apart, elongated auricles, a symmetrically-placed, and sessile ear-lobe; head almost circular in horizontal circumference, if anything slightly brachycephalic. The prominent features about the face and head being indicative of degeneracy. The prisoner talked freely when examined by the physicians, and acted in a natural and unassuming manner; there was nothing about his behavior to arouse a suspicion of simulation. He talked at great length about the Lansing case and his former trial, but what he said mostly concerned the money due him from the railroad company, and that in his possession when arrested. No matter what topic was brought up in the course of the conversation he would in his answer almost immediately come back to the money, and repeat the same story. The presence of hallucinations could not be ascertained. Questions relating to the crime of which he stood accused were not permitted by the Judge. Questions about crimes in general, he answered in an unconcerned manner, and developed peculiar views as to his right to take things which did not belong to him, although he appeared to appreciate that unprovoked violence to anybody was criminal and punishable. During the trial the prisoner was quiet and undemonstrative, except on one occasion when the Warden of the prison where he had been confined, described punishments in vogue toward rebellious prisoners, who refused to work and obey orders. While this testimony was in progress Raten commenced to explain to his counsel how he had been punished, and then burst into tears; his emotion lasting a few minutes, after which he was quiet as before.

The physicians individually gave expression to about the same opinion as to Raten's mental condition. As far as they could judge from the information at their disposal and the limited opportunity of observation, they thought Raten was of unsound mind, but were inclined to think he knew the difference between right and wrong; this latter question being submitted to them by the counsel for the prosecution. One of the physicians thought he was not in a condition to intelligently defend himself on a trial. The jury, after a short deliberation, returned the verdict that he was insane, and he was accordingly committed by the Judge to the Stockton Insane Asylum, April 27th, to remain until pronounced sane, and in case of recovery to be returned to the Sheriff of Sacramento county for trial.

Note.—After the above had been written, a letter was received from Judge Hinkson, of Sacramento, asking the physician in attendance on Raten for his opinion of the prisoner's mental condition. The reply stated that Raten had been found to have no insight into his condition or the circumstances of his detention in the asylum. His only aim in life appeared to be to get the money back, which the government owed him; and he committed the murders for the sole purpose of directing the attention of the government to himself and the money due him, which he had not succeeded in accomplishing directly by interviews, etc. In the early part of June, Raten became very ill with croupous pneumonia. At the hight of the attack, when the temperature was 104° to 105° F., the patient was very weak, but not delirious. He gave expression to the same ideas on the subject of his money, the abuse he had suffered, and what incited him to commit the crimes. He wished that the time had come when he should go home to Sacramento and get his money. Raten's mental condition was considered a chronic and incurable one. Upon receipt of this report, the Judge discharged the jury resummoned July 20, 1896.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, July 21, 1896.

The President, F. B. SUTLIFF, M.D., in the Chair.

Nephrolithiasis With a Report of a Case of Nephrectomy.—DR. F. M. REITH read a paper upon this subject. He said: Nephrolithiasis is a common disease in limestone countries, especially in Kentucky, Tennessee, and the central States of the Union. It is sufficiently common in certain parts of California to attract the attention of the medical profession. In the simple form of gravel the stone is formed in the pelvis of the kidney, whence it finds its way into the ureters, passes into the bladder, and is voided by the urine. While passing through the ureters the rough edges of the stone cause the most excruciating pain—nephralgia, or nephritic colic. Renal calculi are generally formed of uric acid, oxalate of lime, or phosphates, with animal matter. These stones often attain great size, sometimes weighing several ounces. This form of lithiasis is the subject of the paper this evening, and I shall confine my remarks to a report of the following case recently treated at the County Hospital:

John M——, æt. 63, native of Germany; laborer; was admitted to the hospital January 11, 1896. He complained at first of pain in the left lumbar region over the kidney, but the next day the pain was on the right side, more intense, and extending down the line of the right ureter. After a few hours this acute pain subsided, but he still complained of a dull ache in the lumbar region over the right kidney. January 14, he exhibited a small calculus about half the size of a pea, which had passed with his urine. The pain in the lumbar region continued, but was of a milder character. Kidney trouble was then suspected. His urine was examined, and found to contain great quantities of pus, sometimes mixed with blood. The amount of pus passed daily was from 2 to 4 ounces. The origin of the pus was not difficult to determine, guided as we were by a pain of greater or less severity in the back caused by the continued irritation of the stones in the pelvis of the kidney. The retention of pus caused the kidney to attain such size that it could be readily felt on manipulation. Patient finally developed symptoms of absorption of pus, such as fever, sweating, and vomiting. Little benefit was expected, and none received from diuretics, and an operation was advised and agreed to.

March 3, 1896, assisted by Drs. Huntington, Ross, and myself, an extirpation of the right kidney was done by Dr. G. A. White. The primary incision was begun half an inch below the twelfth rib, running nearly parallel to it, and extending downward and forward about 5 inches in length. At first the kidney was difficult to locate owing to its anomalous position. It was found to be firmly attached to the tissues in the upper part of the right iliac fossa and situated very closely to the spine. This position was due to several conditions; the increased size of the organ; the amount of pus it contained; the size and weight of the stones, and the strong bands of tissue, resulting from inflammation, that were still contracting. The kidney being separated from these bands, and its area of kidney fat was brought upward and into view, the vessels and ureter were tied with separate silk ligatures, cut off and permitted to drop back into the wound. Light iodoform gauze packing was introduced to control capillary hemorrhage and support the vessels.

Recovery from this operation was prompt, complete, and uneventful. The bladder on account of cystitis was kept drained and irrigated with boracic acid, lysol, or creolin solutions. The pus which had been profuse disappeared, and the cystitis was greatly ameliorated. Patient continued to complain of occasional pain over the left kidney, but it was never intense, nor did it excite more than a suspicion that this organ might also be involved. About the middle of June, 1896, patient showed me a small growth, the size of an almond, situated on the right side at the lower border of the ninth rib. As it was painful, I excised it. Two days later inflammatory infection was noticed in the wound, which rapidly developed into a diffuse cellulitis of the back. Notwithstanding very free incisions were made and frequent antiseptic irrigations the patient did badly, and died of septicemia, July 3, 1896. The infection came from an erysipelatous wound in an adjoining bed.

Autopsy 24 hours after death. Examination showed diffuse suppuration of the cellular tissue, extending over the entire back from scapula to sacrum, and resulting in fatal septicemia. A dissection of the cicatrix of the nephrectomy operation showed perfect repair. The silk ligatures were found to be partially absorbed, and were imbedded in sound cicatricial tissue. The stump of the right ureter was atrophied. The left kidney was removed and found to be about one-third larger than normal. It contained one large and several small calculi. The bladder held 8 ounces; its walls were thickened.

This case is of special interest, furnishing as it does an example of calculus of both kidneys. The removal of a kidney is a serious operation under the most favorable circumstances, and when both organs are diseased, the danger of the operation is vastly increased. The clinical history of this case shows the right kidney to have been the one most extensively involved in the suppurative process. To the fact that the left kidney was comparatively healthy, enough glandular structure being left unimpaired to carry on the urinary elimination, was due the successful issue of the nephrectomy.

Dr. G. A. White: This case was of considerable interest to us all from the fact that we have had several there during the year. Whether both of this patient's kidneys were involved was a matter of much interest. There was no difficulty encountered in locating the source of suppuration, because all the acute symptoms pointed to the right organ, the one found to be affected. The quantity of pus varied from 2 to 4 ounces, and was sometimes larger. The little growth that ultimately resulted so disastrously, was probably a neuroma. It happened that an erysipelatous leg was near that bed and probably infection was transmitted from one wound to the other. Every effort was made to prevent the man from dying when it was discovered the wound had become infected. Free incisions were made along the back and irrigation was carried out. The fact that the left kidney, which was hoped to have been sound, was badly involved, prevented a recovery. It was very gratifying to find the field of operation in such perfect condition. The cicatrix was well formed and the ligatures were in an excellent state of preservation, that which was left of them had undergone softening and absorption. The other kidney was removed at the autopsy and found to contain several stones.

Dr. H. D'Arcy Power: I think the difficulty arises in certain cases in distinguishing the pain caused by stone and the pain caused by highly acid urine. Some people suffer pain which, to a great extent, resembles that of stone in which the whole trouble lies in a urine loaded with uric acid. Blood is sometimes present in the urine from malaria. Quite a number of cases are associated with lime in the urine. I think that DaCosta gives a case in which blood in the urine had been coming on every 2 or 3 days. There are two methods of diagnosis that are worth, considering. I refer to massage of the kidney with a view to ascertaining the presence of blood in the urine. If you have stone in the kidney, you can see blood in the urine afterward. Another method that gives good results is catheterization of the ureters and the use of the cystoscope, which, in the hands of one competent to use it, gives one of the best means of diagnosis in these cases.

Dr. Thos. Ross: Nephrectomy is a comparatively recent operation. I think the first was done in Heidelberg, in 1869. I noticed to-day, in the proceedings of the Ontario Medical Society, held in Toronto, last June, where Dr. Holmes had done a laparotomy for a cystic tumor of the kidney in a lady 49 years of age, supposed to be of traumatic origin. The lady made a nice recovery. She did not suffer from shock. The kidney weighed 49 ounces.

Dr. F. Gundrum: I take issue with the author in attributing urolithiasis to lime in the drinking water. I have lived in two limestone regions for quite a considerable time. There was plenty of lime in the drinking water, yet urolithiasis was a rather rare complaint. The majority of cases were of the uric acid variety. I believe the true pathology lies in a faulty metabolism of the organism. There is always enough lime entering the system to form stones in the urinary apparatus. I agree with Dr. Powers as to the difficulty that sometimes arises in making a diagnosis in cases that are passing calculi from the kidneys down to the bladder.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, July 14, 1896.

The President, WM. FITCH CHENEY, M.D., in the Chair.

New Member.—C. H. CARLSON, M.D., was duly elected a member of the Society.

Two Cases of Tubercular Meningitis.—DR. A. H. TAYLOR read a paper with this title. He said: My excuse for bringing these cases before the Society is their rarity at the present time. Both cases are quite typical as to history, course, and termination. The first case, John S——, age 2 years, gave a history of fretfulness and disturbed digestion. He vomited frequently, and was constipated for a week before I saw him; bowels had only moved from enemata. Previous history was not clear, as he had had various nurses since his mother died of alcoholism when he was three months old. The father has a poor, under-fed, sallow appearance, showing little physical or mental stamina. He said the boy had never been strong. He had been fed on condensed milk for the first year. No history found of tubercular trouble in parents on either side. Mother a chronic drunkard for two years before child was born; not sober two days at a time while carrying child. Child was of average size for the age, poorly nourished; colorless, flabby skin, light hair, and peculiarly prominent ears. Head small, flattened posteriorly, and very broad between the ears. It was very nervous, easily frightened. Thinking it was some digestive disturbance I ordered small doses of calomel, and gave instructions as to diet. Next day there was no improvement. Stopped calomel and ordered enemata. Next day found patient much worse. Rectal temperature 103° F.; pulse 70, and irregular. Patient very restless, tossing of the head from side to side; eyes wide open, with meaningless stare. Hand constantly moved over forehead and side of head; knitting of brow as if in pain. From this time to the end, a week later, the symptoms rapidly progressed. Had a severe spasm of several hours on the fifth day, followed by a hemiplegia. Pupils irregularly dilated. Temperature varying from 101° to 105° F. Pulse slow; muscles supporting head quite rigid. Rapid emaciation in spite of abundant nourishment *per rectum*, etc. General convulsions frequent, but controlled by sodium bromide. Toward the close the typical Cheyne-Stokes respiration appeared. An interesting symptom was a bright red flush of one cheek, alternately coming and going. The second case was that of a boy, Chas. B——, age 14 months. First saw him October 27, 1895. Had seen child every month since its birth. Present illness noted October 20th, but since then had only been irritable, with occasional vomiting, and parents thought little of it till he refused to eat. No tubercular history obtainable. The maternal grandmother had been in an asylum. This was the second child. The first, 4 years of age, being strong and healthy. Infant was strong and did well till on tenth day he had double lobar pneumonia. He seemed to recover completely after a time; but when 3 months old he had an attack of bronchitis that was tedious, but the cough finally ceased after use of an emulsion of petroleum. When 8 months old he had an abscess of the right testicle. Two drachms of pus were evacuated, and it healed readily. He did fairly well afterward, but had a little digestive trouble, an occasional attack of bronchitis, was rather precocious, the head being over average size. I saw the child 3 months before his last illness. He was pale and thin, skin loose, muscles soft and flabby, and it seemed that no food would assimilate properly. This was about its condition when I saw it, October 27th, at the beginning of its last illness. I ordered a laxative on account of the constipation. Next day he had slept badly, and was peevish and restless; would not lie outside of its mother's lap; face turned from light; light turned on face made its eyes squint, with a tendency to keep them closed. Had vomited several times during the night, and enemata only, moved bowels. Child did not improve, and I was called hurriedly next day on account of a convulsion, limited to one side. Marked cerebral symptoms now supervened. Head retracted, neck muscles rigid, eyes half open, purulent conjunctivitis, staring expression, pupils dilated and irregular. Abdomen retracted, temperature 102° F., pulse 70 and irregular, and respiration alternately rapid and slow. Rapid failure ensued. Hemiplegia and paralysis of muscles of deglutition came on early. He retained but little of the nutritive enemata, and emaciation was most rapid.

The integument was so loose that it could be wrapped in folds about the limbs. Toward the end Cheyne-Stokes respiration became more marked. The temperature ranged from 104° to 106° F.; pulse rapid and very weak. He died November 8th. No autopsy was allowed in either case. I am indebted to Dr. Wm. Fitch Cheney for able assistance in an early diagnosis in each case. Treatment was symptomatic. Sodium bromide *per rectum* in both cases. Ice was applied to the head also. Mustard leaf at base of skull in first case seeming quieting. In second case gave strychnine hypodermically on account of the condition of the heart.

Dr. H. M. Sherman: Regarding the use of the words "tubercular" and "tuberculous," the dictionaries give about the same meaning to each. Tubercular is the adjective of tubercle, and tuberculous is the adjective of tubercular. We speak of a tubercular process of a bone, so tubercular meningitis would not be right. The most interesting point in tuberculous meningitis is the possibility of bone tuberculosis. There are statements that interference with the brain trouble made bone trouble more likely to occur, or *vice versa*, but the analysis of 100 cases by an authority shows this not to be so. I have seen cases of bone tuberculosis operated upon with a following tuberculous meningitis; and it is comforting to know that our operations do not increase the liability of a meningitis. As to diagnosis, it is frequently very difficult. In one case, in June last, I withheld my diagnosis for two weeks. The whole symptoms seemed to point to an abdominal trouble, but the fact that the case did not speedily recover, and soon devoloped the "boat-shaped belly," with the appearance of cerebral symptoms, made the diagnosis positive. The President will, I think, remember where, with Dr. Gibbons and myself, we watched a case day by day, uncertain one day, sure the next, that we had tuberculous meningitis. It is always best when in doubt to explain to the family the difficulty. and then await further developments. Some years ago an ointment of iodoform was vaunted as a cure; but those cures were like these we find in some so-called cases of syphilis; if tuberculous meningitis gets well, it is very rare. The cause of death in these cases is probably a paralysis due to a toxine of bacillary origin.

Dr. C. M. Richter: I have doubts as to whether the cases reported by Dr. Taylor were tuberculous meningitis. He should have punctured the spinal canal, and examined the resulting fluid for bacilli. There have been a number of cases brought forward and so diagnosed. Certainly it is a proper proceeding. These cases resemble syphilitic cases. And there have been cases reported resembling these which were due to the bacillus of influenza. I have seen three cases during 20 years; all died. In one case an ointment of iodoform was rubbed into the scalp, and the case got well; afterwards syphilis appeared, and we knew that it had not been of tuberculous origin. One should be exceedingly careful in the diagnosis, especially at the present time, and I would ask Dr. Taylor, why he did not puncture the spinal canal as a means of diagnosis?

Dr. G. B. Somers: These cases of meningitis are of interest, in view of the fact that the disease is so hopeless. During the past year a great deal of attention has been paid this disease from a surgical standpoint. In a recent issue of the *British Medical Journal*, a record of several cases operated upon is given. The operation done was trephining 1½ inches above and 1½ inches behind the left auditory meatus; a trocar was then passed towards the left ventricle. No fluid was found, but drainage was made with a few strands of catgut between the meninges. The case recovered. After recovery the temperature remained between 99° and 100° F. for a long time. Rickets, who has operated in these cases, does so with the same idea as has suggested opening the abdomen in tuberculosis of the peritoneum. Another point in diagnosis is the similarity sometimes to convulsions from uremia, which I have noted, and we should always examine the urine in such cases.

Dr. K. Pischl: It would help in making the diagnosis if an ophthalmoscopic examination had been made. While it would be rare to see tubercular nodules in the choroid, we might see a choked disk, and that would help in the diagnosis.

Dr. C. G. Kuhlman: I am astonished that the author would come here and say these were cases of tubercular meningitis. There were no *post-mortem* examinations made. I certainly see no symptoms here to make me think they were cases of meningitis—they are more like abscess of the brain. All cases of the kind that I have seen have been more rapidly fatal, not lasting 11 days.

As to the bacillus theory, that is out of the question; it is now in oblivion. As to tapping of the spinal canal, I think that would be unnecessary, and a proceeding endangering the life of the patient.

The President. I feel myself called upon to say a few words in these cases, as I saw them with Dr. Taylor. The main point is in the diagnosis, for when it is once established, the prognosis is bad. As to syphilis, I have never seen cases where the meningeal symptoms were the only symptoms of syphilis. There are other symptoms about the throat, etc., present At the time I saw these cases, the method spoken of by Dr. Richter had not been mentioned, at any rate as a means of diagnosis, but as one of treatment, under which the patient died just the same. It is now used as a method of diagnosis. As to duration: Tubercular meningitis in children over 2 years, is of several weeks' duration, and not so rapid as Dr. Kuhlmann says. Jacobi says from 4 to 6 weeks. Rotch says that in infants under 2 years, the course is shorter, the onset being more sudden, more like a traumatic meningitis, and the patient dies of high temperature and convulsions in a short time.

Dr. S. S. Herrick: There is one symptom not spoken of to-night, that of Trousseau, who pointed out that the drawing of a sharp instrument across the abdomen would leave a red line. We will all agree that this disease is incurable. Prophylaxis is most important, not treatment. Attention should be paid to the feeding of infants. The largest part of the cows from which milk comes for infant feeeding, are tuberculous, and so this is of vast importance, especially as young children are the most susceptible.

Dr. Taylor: The retraction of the abdomen in the two cases was well marked. As to tapping, we were so certain of its being tuberculous that we would not have cared to tap. Then, too, the people were of the class that would have laid the death at our door as resulting from the "operation." There was no syphilitic history, as I had followed the family for a long time as family physician. As to the duration, the disease runs from 3 to 6 weeks. Dr. Vogel found the tubercle bacilli in every case of 50 on which *post-mortem* examinations were held.

Colloid Cyst of the Ovary.—**Dr. J. H. Barbat** reported a case of colloid cyst of the ovary, and demonstrated the specimen operated on with Dr. Frick, Post Surgeon of the Presidio: M. S——, age about 40 years. Enjoyed good health until 6 months previous to the operation, when she noticed her abdomen beginning to enlarge. She paid no attention to it until her breathing and heart's action became obstructed on account of her large size. She then consulted the Post Surgeon of the Presidio, Dr. Frick, who diagnosed some ovarian disease, and sent her to me for operation. She was operated upon March 8, 1896. When the peritoneum was opened, a large quantity of serum and colloid material escaped and the tumor presented. The hand was introduced to detect and separate adhesions, and in manipulating, the cyst wall was ruptured in several places, allowing the contents to escape into the abdominal cavity. Owing to the peculiarly tenacious character of the cyst contents, it was extremely difficult to empty it. The only method which proved successful consisted in grasping a handful of the jelly and pulling it out; this required fully half an hour before the cyst was reduced enough to deliver it. The pedicle was small and the balance of the operation was completed without further trouble. The abdominal contents were covered with a uniform coating of the colloid material which it was impossible to remove. The interest attached to the tumor, which was a multilocular cyst of the left ovary, consists in the character of the contents, which resembled wine jelly, except that it was more tenacious, and it was impossible to syringe it out. The amount of material removed from the patient was about 3 gallons.

Dr. F. B. Carpenter: The recovery of the woman was all the more remarkable when we take into consideration that the cyst ruptured before removal and covered the abdominal contents with a thick layer of the colloid material, which could not all be gotten out, and when the abdomen was closed some still remained. The specimen looks as it might have been developed in a graefian follicle.

Dr. C. G. Kuhlman: I have my doubts as to this being a multilocular cyst; it looks more like a retention cyst, with mucus. We had a celebrated case in Chicago of that character, operated on by Dr. Finger, that being a retention cyst of the pancreas, however.

DR. BARBAT: Every part of the peritoneum, intestines, etc., were covered with at least a quarter of an inch of this material. I do not agree with Dr. Kuhlman that the peritoneum or ovary secretes mucus, as he says. As to the precise character of the fluid I cannot say, as it has not been examined chemically.

The Differentiation of the Blood Corpuscles of Man and Animals.—DR. GRAY: A few meetings since, when Dr. Thorne read his paper on the Relations of the Red Blood Corpuscles to Forensic Medicine, I made a plea for the use of the camera lucida as a means of differentiation between the human and animal corpuscle, and I would now like to show the drawings spoken of at that time. There are two different sets, one of human and one of hog's blood. They were drawn by means of a camera lucida with a 1,250 diameter lens, and I submit them as a visible proof of being able to detect a quantity of $\frac{1}{60000}$ of an inch, for so it does. These drawings are not offered in combat of Dr. Thorne's statements, but they do demonstrate that under favorable circumstances, they can differentiate between human and other red corpuscles.

CORRESPONDENCE.

Peroxide of Hydrogen, an Explosive.

SIR: The fact that peroxide of hydrogen ($H_2 O_2$) is a violent explosive may probably be overlooked by many physicians who receive specimens of this article from manufacturing chemists. A few days since a bottle containing 4 ounces of this compound exploded in my operating room, doing much damage. I was fortunately not in the room at the time. Fragments of the bottle which contained the peroxide penetrated deeply into the hard wood of an adjoining book-case. As this article has recently been recommended in the treatment of diseases of the ear and throat, a report of my experience may not be amiss.

M. C. O'TOOLE.

San Francisco, Cal.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific) from July 20, 1896, to August 20, 1896.

The telegraphic instructions of this date directing First Lieutenant John S. Kulp, Assistant Surgeon, to proceed to Fort Sherman, Idaho, and report to the commanding officer for temporary duty are made of record. Par. 3, S. O 125, Dept. of the Columbia, July 29. 1896-

Captain Guy L. Edie, Assistant Surgeon, with a detachment of the Hospital Corps and an ambulance, will accompany the 1st Infantry to Santa Cruz. Upon completion of this duty, Captain Edie and the members of the Hospital Corps detachment will return to their respective stations. Par. 2, S. O. 88, Dept. of Cal , Aug 7, 1896.

Pursuant to telegraphic instructions from the War Department of this date, John L. Phillips, Assistant Surgeon, will proceed to Chicago, Ill., and there report to Major General Wesley Merritt, President of the Retiring Board, at 10 o'clock A. M., on the 18th inst., as witness. When notified that his presence is no longer required by the Board, Captain Phillips will return to his proper station. Par. 1, S. O 132, Dept. of the Col., Aug. 13. 1896.

So much of S. O. 69, A. G. O , March 23, 1896, as directs First Lieutenant Benjamin Brooke, Assistant Surgeon, to report to the President of the Examining Board appointed to meet at San Francisco, Cal., April 14, 1896, for examination by the Board is revoked.

ITEMS.

Dr. S. Iglick has removed from Alleghany to Downieville, Cal.

Dr. Albert Abrams has removed his office from 431 to 784 Geary street, San Francisco, Cal.

Dr. Donald McC. Gedge has removed from Honolulu, H. I. to 108 Stockton street, San Francisco, Cal.

Dr. Chas. C. Wadsworth has removed his office and residence from 526 Sutter street to 1104 Van Ness avenue, San Francisco Cal. The office of the Board of Examiners will be at the same address.

Dr. I. N. Love. The following resolution was adopted by the faculty of the Marion-Sims College of Medicine: WHEREAS, Dr. I N. Love has found it incumbent on him to sever his connection with the Marion-Sims College of Medicine, the members of the faculty of that institution embrace this occasion to express their appreciation of his past services, and to extend to him their hope that in all his future connections he will find both pleasure and profit.